Maciej Karwowski
Balázs Komoróczy
Peter C. Ramsl
(eds.)

ARCHAEOLOGICAL STUDIES OF THE LATE IRON AGE IN CENTRAL EUROPE

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("Doba laténská v Čechách, na Moravě a na Slovensku")
in Klement-Oberleis
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Maciej Karwowski, Balázs Komoróczy, Peter C. Ramsl (eds.)

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EDITORS' PREFACE

MACIEJ KARWOWSKI, BALÁZS KOMORÓCZY, PETER C. RAMSL

As part of the "Celtic Hilltop Settlement on Oberleiserberg" project (No. P22615-G21), financed by the Austrian Science Fund (FWF) and carried out at Vienna University, the editors of the current volume invited the cooperation of the Czech-Slovak Working Group for the Iron Age (Česko-slovenská skupina pro dobu železnou) in organizing an international conference, the fifteenth in a series of scholarly encounters on the "La Tène period in Bohemia, Moravia and Slovakia" (Doba laténská v Čechách, na Moravě a na Slovensku). Two other institutions involved in organizing the conference were the Institute for Oriental and European Archaeology of the Austrian Academy of Sciences and the MAMUZ Museum in Asparn an der Zaya. The general title of the conference, "Keltové / Die Kelten 2014", was intended to reflect its thematic spectrum covering a broad range of issues from the Central European Late Iron Age. Held on 11–13 June 2014 at the Klement-Oberleis conference centre in Lower Austria, the conference was attended by sixty-five researchers from nine countries: Austria, the Czech Republic, Slovakia, Slovenia, Croatia, Hungary, Poland, Germany and France. A total of 28 papers and 13 posters were presented, most of which are published in the current volume. Also included in this publication are contributions from researchers who, for various reasons, could not attend the conference.

The conference venue was not a random choice. On several occasions in the past, the Klement-Oberleis conference centre has hosted international encounters on Iron Age archaeology. No less importantly, this centre is located on the north-western slope of Oberleiserberg, atop which lies one of the more important Late La Tène sites identified in the Middle Danube region, the site studied within the "Celtic Hilltop Settlement on Oberleiserberg" project.

The "Keltové / Die Kelten 2014" conference, the fifteenth international conference in the "The La Tène Period in Bohemia, Moravia and Slovakia" series, was also the first to be organized in a country where the official language is not Slavonic. The idea of conferences annual conferences dedicated to the La Tène period goes back to the 1990s and Miloš Čižmář, the Director for Archaeological Heritage (Ústav archeologické památkové péče) in Brno in Moravia. An informal Czech-Slovak Working Group for the Iron Age was established at this time by Miloš Čižmář, Natalie Venclová of the Czech Academy of Sciences in Prague, and Karol Pieta of the Slovak Academy of Sciences in Nitra to assist close exchange and joint research projects by Iron Age archaeologists from Bohemia, Moravia and Slovakia under the new administrative and political situation following the dissolution of Czechoslovakia. The conferences, organized since 2000, were initially held in the Czech and Slovak languages and focused on the territory of former Czechoslovakia, i.e., Bohemia, Moravia, Czech Silesia, and Slovakia. The first of these encounters took place on 19–21 October 2000 at Mostkovice near Prostějov in the Haná region of Moravia. Over time, researchers from Poland started to attend and Polish was added as the third official language used during the conference sessions while the geographic scope was extended to include southern Poland. Eventually, the eighth international conference was titled "The La Tène Period on the Territory of the Czech Republic, in Poland and Slovakia" ("Okres lateński na ziemiach czeskich, w Polsce i na Słowacji", "Doba laténská v českých zemích, v Polsku a na Slovensku"). It was held on 24–27 April 2007 in Poland, in Polanica Zdrój in Kłodzko Land.

Adopting Czech, Slovak and Polish as the only official languages of the conference made it convenient for many researchers to report on studies made in their respective regions. On the other hand, it posed a communications barrier for participants from non-Slavic countries because as time went by, the conferences attracted a growing number of researchers from Austria, Germany, Hungary, and France. Vincent Megaw from Adelaide was possibly the most outstanding of these newcomers, a true pioneer and a remarkably consistent and active participant. When we organized the conference at Klement-Oberleis in Lower Austria, we decided to depart from earlier tradition and proposed to hold it in German and English. This encounter was the first to have such a strong international character. German and English as the new conference languages have now become a tradition.

At this point, it is appropriate to thank the authors of the individual studies published here not only for their work but also for their patience. The final version of the publication of the studies, most of which were presented at the Klement-Oberleis conference, was not easy and took longer than the editors intended. The main reasons were insufficient financial resources and a lack of editorial facilities. Eventually, the Czech Academy of Sciences, Institute of Archaeology, Brno, took over the technical editions and publication in its monographic series Spisy Archeologického ústavu AV ČR Brno. It was motivated by the undeniable professional quality of the individual contributions and the long protohistoric research tradition in this institution. Some of the former initiators and participants at the Celtic conferences at the Institute of Archaeology were working; many are still active researchers on the Late Iron Age and cooperate with this institution to this day. As a central institution, the Institute of Archaeology

has long sought to support and moderate scientific activities in the field of protohistory. It plays a leading role in organizing the conference series Archaeology of Barbarians, which partly thematically overlaps with the similarly regularly held meetings of the Central European archaeological community on the subject of the Celts. It also regularly edits and publishes the outputs of these conferences. The thematic closeness, content and methodological interconnection of the research of the Celts, Germans and Romans in the middle Danube is indisputable in modern archaeological science. This book also aims to understand mutual interfaces and deepen the existing cooperation in their discovery.

ACKNOWLEDGEMENTS

The present volume is the first publication of proceedings from a conference held within the series "The La Tène period in Bohemia, Moravia and Slovakia". Presenting it to our readers we take this opportunity to give our cordial thanks to individuals and institutions who contributed to its writing:

– the Czech-Slovak Working Group for the Iron Age, for accepting our invitation to Klement-Oberleis, cooperation in organizing the conference, and for its exceedingly fruitful proceedings;

– the Austrian Science Fund (FWF), for financing the "The Celtic Hilltop Settlement on the Oberleiserberg" project within which the conference at Klement-Oberleis was organized;

– Peter Trebsche of the MAMUZ Museum in Asparn an der Zaya, for helping to organize the conference, numerous consultations and substantial factual support;

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– Ernst Lauermann, then the acting Lower Austrian State Archaeologist, for financial and organizational support for the project;

– Herwig Friesinger, Secretary General Emeritus of the Austrian Academy of Sciences, for many years director of archaeological fieldwork on Oberleiserberg and counsellor of many subsequent research projects associated with this site, for supporting the idea of both the conference itself and the publication presented here;

– Alois Stuppner of the Institute of Prehistoric and Historical Archaeology, University of Vienna, on behalf of which he has directed many seasons of excavation on the Oberleiserberg, for assistance in organizing the conference and a professional tour of this site given to the conference participants;

– Ulrike Schuh of the Institute for Oriental and European Archaeology at the Austrian Academy of Sciences in Vienna, for coordinating works related to the preparation of the present volume for press;

– Aneta Skrzypczak, of the "The Celtic Hilltop Settlement on the Oberleiserberg" project for major organizational support during the Conference and technical assistance during editing work on the present volume;

– Elfriede Schuster of the MAMUZ Museum in Asparn an der Zaya for managing the financial aspects of the Conference.

M. KARWOWSKI – B. KOMORÓCZY – P. C. RAMSL (EDS.)
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INTRODUCTION TO ISSUES ADDRESSED IN THE PRESENT VOLUME

PETER C. RAMSL, MACIEJ KARWOWSKI

Archaeological studies of the Late Iron Age in central Europe – "Keltové / Die Kelten 2014" – which was the theme of our conference, and the thematic and geographic scope of the articles included in the present publication call for a few words of explanation.

The key issue is the term "Celts" – and the derivative term "Celtic" – one which, particularly in recent years, has been a subject of much discussion and controversy. It has been understood in many different ways by archaeologists, historians and cultural anthropologists, one good example of which must be the extremely interesting polemic between John Collis and Ruth and Vincent Megaw.[1] The term entered archaeological circulation in 1871 when, at the International Congress of Anthropology and Prehistoric Archaeology in Bologna, the French archaeologist and anthropologist Gabriel de Mortillet and his Swiss colleague Emil Vouga met and compared their findings from the cemetery at Marzabotto in northern Italy with those from La Tène in Switzerland and tied them to the historical Celts.[2] Another important term of some relevance for studies in the Celtic identity or many objects and archaeological phenomena is "Celtic art", presumably put into scholarly circulation by the English researcher John O. Westwood in 1856 in reference to Irish, Welsh and Scottish Early Christian art.[3] During the same period the term "Celtic art" was used by the Scottish-born Canadian archaeologist Daniel Wilson, but only with reference to the art of the Celtic-speaking inhabitants of Scotland. The first to use the term in describing prehistoric finds in 1857 was the English historian John M. Kemble. Sometime later, the English archaeologist Arthur Evans applied it in the context of archaeological materials from the region to the north of the Alps dated to the fifth century BC and gave it a wider circulation. It is worth noting that in the archaeology on the European continent the expression "Celtic art" was not seen until 1914, when it was used by the French archaeologist Josef Déchelette. However, this researcher too based himself on the findings of British fellow researchers.[4]

Another field where the term "Celtic" has often been used is linguistics. In this context it appeared at least in the sixteenth century when in 1582 the Scottish historian George Buchanan differentiated the following language groups: *Linguae latinae* (Italian, French: the Romance languages), *Linguae germanicae* (English, German, Frisian: Germanic languages) and *Linguae gallicae* (Belgic, Britannic, Celtic: Celtic languages).[5] In 1703 the Breton monk and theologian Paul-Yves Pezron proposed defining nations through the language spoken by them, e.g. Greeks by Greek, Romans by Latin, Germanic peoples as speakers of a Germanic language, and the Celts as speakers of Celtic languages, giving rise to the association still operating today of linguistic groups with the ethnic identity of peoples speaking those languages.[6] This approach has strongly impacted the ethnic interpretation of ancient peoples and, consequently, archaeological cultures. As recently observed by John Collis, a prominent specialist in the field: "The problems come when scholars, especially linguists, insist on imposing as modern definition of the Celts on to the ancient world, for instance that they can be defined as speakers of Celtic languages, or as users of Celtic art, or as bearers of the La Tène Culture (whatever that means)…".[7] We find it hard to disagree with this observation.

As editors of a tome which uses the word "Celts" in its title we wish to stress that in our view the term ought not be used in protohistoric archaeology to define the ethnic identity of any group, but it may be a synonym for some archaeological cultures, such as the late Western Hallstatt Culture or the La Tène Culture, understood not as ethnically homogeneous complexes but as entities underpinned by complex systems of social communication. Even if we assume that the population of these societies communicated by means of a language which might be defined through linguistic studies as Celtic, this should have no material bearing on the ethnic interpretation of the whole archaeological culture. The network of cultural ties built by prehistoric societies must have been a highly complex structure, subject to now hard-to-reconstruct changes in the way it functioned across time and space.[8] To be sure, these societies could have

[1] MEGAW, MEGAW 1996.
[2] NEUGEBAUER 1992, 9.
[3] WESTWOOD 1856.
[4] COLLIS 2014.
[5] COLLIS 2003, 47.
[6] COLLIS 2003, 34.
[7] COLLIS 2014, 291.
[8] COLLIS 2003.

communicated using a language defined at present in one way or another as "Celtic", but this need not have been the case at all.

Given the rather broad range of subjects of the articles collected in this volume (Fig. 1), it is legitimate and necessary to give an overview of the political and historical situation and, better yet, of the archaeological record on the Late Iron Age cultures in much of central Europe. This is the first period of prehistory illuminated by a range of written records which, while primarily concerned with the Mediterranean region, also shed light on areas found to the north of that zone. This makes it easier to trace reasonably the functioning of different spheres of impact and cultural interrelationships. Interpretation of the ethnicity of archaeological culture groups is much more problematic. Of major help in this respect is data drawn from the written record. Even if the reliability of many of these sources – especially as regards ethnic interpretation – is not free from doubt.

In southern regions of Europe the Late Iron Age is the time of emergence and development of cultures centred on the Mediterranean Sea basin. Their geographical extent and interregional impact varied depending on the changing political situation. Territories bordering on the Mediterranean zone from the north were inhabited by peoples whose development depended to varying degrees on factors stimulated by contacts with the Mediterranean world.[9] Of special interest for our discussion are ancient written sources relating to Thracian[10] and Celtic[11] tribes, immediate neighbours of the Greek world.

Familiar to the ancient authors, the Thracians[12] settled areas in the Balkan Peninsula immediately to the north of the territory occupied by the Greeks and the Macedonians. Their development was closely related to the dynamics of political and economic contacts with the Mediterranean and the Pontic world. To the north of the Thracians the written sources mention the Getae,[13] often also described as Geto-Dacians.[14] Written records relating to the 5th and 4th centuries BC describe the Getae mostly in the context of political events associated with the Thracians (with whom they are identified on occasion) and armed clashes with Macedonia. The territory occupied by Getic tribes includes lands on the lower Danube: the Wallachian Plain, Dobruja and Moldavia. The culture model recoverable from the archaeological material dating to the 5th century BC may be seen to continue Early Iron Age traditions. As a result of contacts with the Greek world, first of all with Greek colonies established on the Black Sea, and also with their southern neighbours the Thracians and Scythians[15] of the Black Sea steppes, this model was subject to gradual change. One manifestation of these contacts and changes associated with them would be richly furnished burials identified with the local elites, referred to as "princely" graves.

The late 4th century BC was a time of an apparent cultural transition in the territory settled by the Getae. The archaeological material from this age reflects the gradual adoption by the Getic culture of features displaying strong connections with Transylvania, a region where around the middle of the 3rd century there is evidence of the decline of settlements identified with Celtic tribes, now replaced by Dacians.[16]

These processes gave rise in the 3rd century BC to a powerful alliance of Getic tribes in the Wallachian Plain, a polity which soon became a genuine threat to the Macedonian armies. More detailed written references to the Dacians date to the turn of the 3rd and 2nd centuries BC; they show that they were closely related to the Getae. While in terms of archaeology Dacian culture also exhibits evident connections with the Getic culture, its development was influenced for the most part by contacts with the Mediterranean civilization. One effect of that impact was the tradition of building strongholds with monumental, stone-built structures, yet another, the introduction and development of native coinage. Parallel to the evident increase in the importance of the Dacians, there was also a shift of the centre of the Geto-Dacian alliance from the Wallachian Plain to Transylvania, where in the 1st century BC a strong and centralized state came into being.

Ancient written sources refer to the powerful ruler of the Dacians, Burebista[17] under whose reign the Dacian kingdom came to pose a serious threat to its neighbours, namely the Greek colonies on the western coast of the Black Sea, the tribes inhabiting the Balkans and the middle Danube region then under Celtic settlement. The political and military power of the Dacian state came to an end soon after the death of Burebista, which, according to the ancient sources, occurred in the same year as Caesar's death.[18]

Quite a few of the Late Iron Age written sources relate to various tribes described as Celts.[19] They report that the Celts occupied a vast territory stretching from the Iberian Peninsula in the west to the eastern reaches of central Europe, one that corresponds for the most part to the range of the archaeological La Tène Culture. Celtic tribes repeatedly came into contact with both the Greek and the Roman world, often posing a serious threat. Despite this, the insight from the written sources concerning the situation in central Europe is rather

[9] See Kaczanowski 2005, 447–448.

[10] E.g. Hoddinott 1981.

[11] E.g. Cunliffe 1997. – Collis 2003.

[12] Cf. also Wolters 2005.

[13] Engels 1998. – Babeș 2012c.

[14] Ioniță 1998, 569–571.

[15] Klinkott, Rolle 2005. – Rolle 2012.

[16] Babeș 2012b.

[17] See e.g. Dobesch 1994. – Babeș 2012b, 396.

[18] See Dobesch 1994. – Dobesch 2012a, 289.

[19] E.g. Collis 2003.

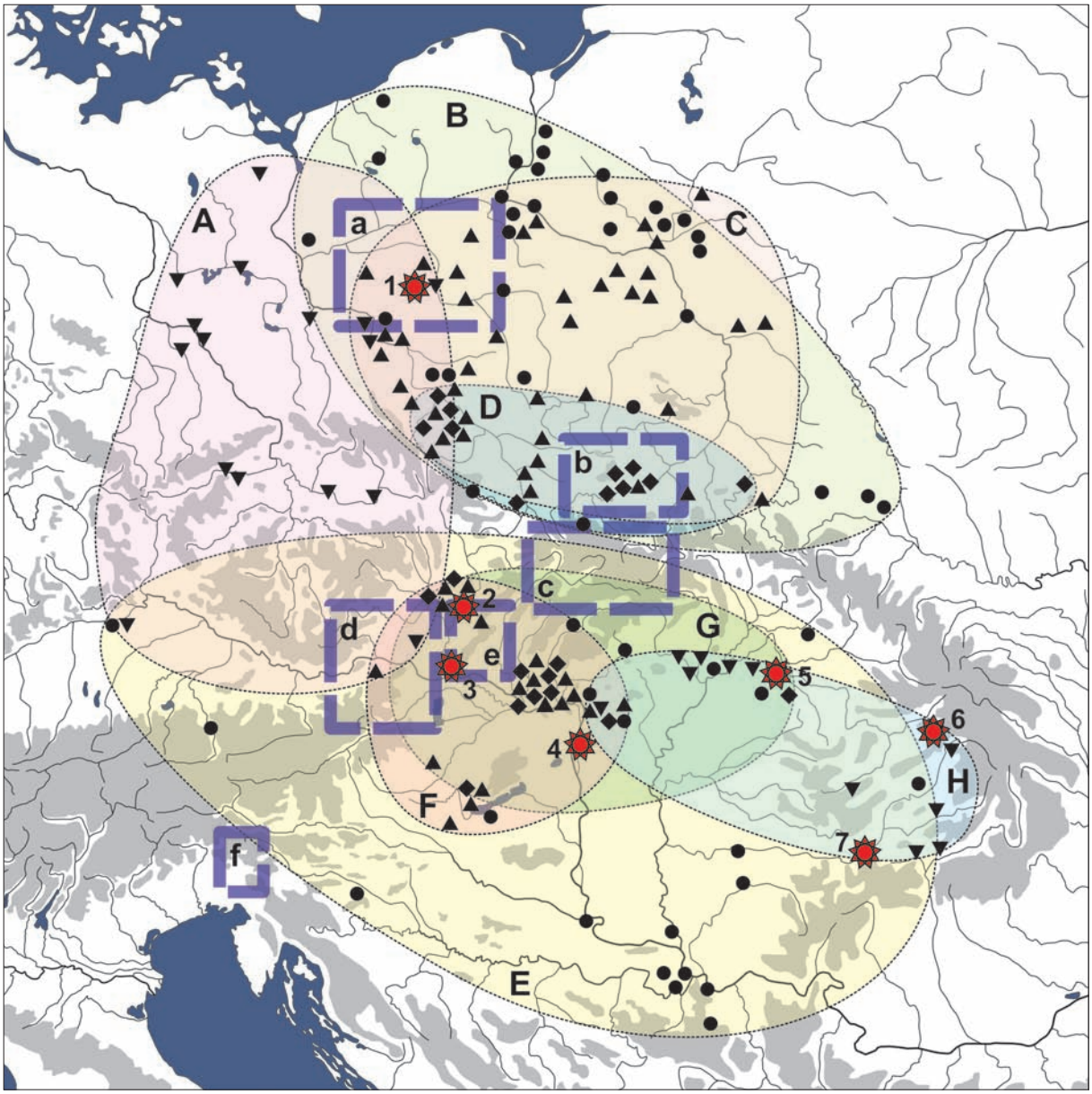

Fig. 1. Map of Central Europe showing regions and sites addressed in individual articles in this volume. – A–H. Macro-regions with individual sites. – A: Teska, Sobucki, Karwowski. – B: Smółka-Antkowiak. – C: Michałowski, Teska. – D: Kieca. – E: Dizdar, Drnić. – F: Ďuďáková. – G: Brezňanová. – H: Rustoiu. – a–f. Micro-regions. – a: Teska, Sobucki, Karwowski. – b: Dulęba. – c: Pieta, Barta, Benediková. – d: Ramsl. – e: Elschek. – f: Laharnar. – 1–7. The more notable of the discussed sites. – 1. Teska, Sobucki, Karwowski; Niedzielski (Błędewo). – 2. Militký (Hodonín). – 3. Elschek (Stupava). – 4. Horváth (Csepel). – 5. Brezňanová (Pişcolt). – 6. Rustoiu (Fântânele). – 7. Ferencz, Roman, Socol (Tărtăria) (graphics: M. Karwowski).

limited, especially in comparison to the information that is available to us about the number, distribution and the history of Celtic tribes in Gaul.

One of the earliest accounts found in ancient authors concerning tribes identifiable with the people of the La Tène Culture of central Europe is about a great migration of Celts which occurred at the turn of the 5th and 4th centuries BC.[20] According to the Roman historian Titus Livius, Ambicatus,[21] the king of the Bituriges,[22] sent forth a group of his subjects to find lands suitable for settlement. A group led by Segovesus[23] headed east to the Hercynian Forest,[24] i.e. an unspecified region in central Europe; another group, led by Bellovesus,[25] set off for northern Italy. In their southward migration the Bituriges were joined by other tribes.

It is worth recalling at this point that the La Tène Culture[26] was a widespread internally differentiated structure, one which evolved over a substrate of the

[20] See Tomaschitz 2002, 37–91.

[21] Tomaschitz 2012a.

[22] Busse, Koch 2006.

[23] Tomaschitz 2012d.

[24] Kehne, Zimmer 1999. – Birkhan 2012.

[25] Tomaschitz 2012b.

[26] Müller 2001. – Urban 2012b.

Western Hallstatt[27] cultural province. The earliest phase of the development of La Tène Culture is one marked by princely burials, mostly known from western European finds. In contrast to the princely burials of the Late Hallstatt period, those dating to the Early La Tène contain a smaller number of goods provenanced to the Greek colonies and a much larger quantity of Etruscan wares. At the same time, many Early La Tène burials may be described as "ordinary" and at times form quite large burial grounds.

The record about the migration of Celtic groups to east central Europe is confirmed by historical evidence from the 4th century on the contacts of Macedonia with Celtic tribes. These events are also reflected in the archaeological record which documents the process of the eastward spread of cemeteries consisting of "ordinary" burials. One of the largest such cemeteries was discovered at Münsingen[28] in northern Switzerland, and similar grave sites may be seen to spread across southern Germany, the Bohemian Basin, southern Moravia with the adjacent Danube region, over much of the Carpathian Basin and as far as Silesia in Poland.[29] It appears, therefore, that these cemeteries, somewhat later chronologically than the princely burials, form a separate, eastern province during the early phase of development of the La Tène Culture. A series of newer studies also show that the earliest La Tène Culture materials found in central Europe that we can attribute to the migration of new groups from the west, should be dated to even as early as the close of the 5th century BC.[30]

Another process unfolding parallel to the eastward spread of La Tène Culture cemeteries was one of growing standardization of the grave inventories. Possibly, this may have been related to changes in the social structure taking place in the course of (or as an effect of) the long-lived and distant migrations of whole tribes, or as a result of the occupation of new lands and the need to adapt to the new realities.

The 3rd century brings significant changes in the archaeological record of the La Tène Culture in Central Europe. These are recognizable in sepulchral traditions, settlement and economic relations, and also, in the style design of metalwork, more notably, of personal ornaments and dress fittings. In the first half of the 3rd century there is evidence in the cemeteries of a departure from the earlier practice of inhumation, now increasingly replaced by the cremation rite.[31] This change of the burial rite went hand in hand with other changes, one of the more spectacular being the ritual destruction of the grave goods, weapons in particular. The reasons for this change in ritual remain unclear but it is reasonable to interpret cremation as evidence of Greek impact. It is also notable that during this period cremation burials are noted in particularly great numbers in eastern regions of the La Tène Culture territory, while in some areas in the west of that territory the dominant form of the burial rite continues to be inhumation.

Also observed in the archaeological record is a certain degree of consolidation of settlement structures of the La Tène Culture, illustrated primarily by discoveries made in the increasingly recorded settlement sites.[32] Studies of these sites confirm that the arrival of the new population was accompanied by the spread of new technologies, one of them being the production of high quality wheel-made pottery.[33]

Of particular significance for this period of La Tène Culture settlement in central Europe are the written records concerned with Celtic tribes involved in the clashes with Macedonians and Greeks in 278–279 BC.[34] As they retreated, many of these tribes established themselves in the middle Danube region. We have a little more data about Celtic tribes led by Bathanatos[35] which made their way to the area on the confluence of the Sava River with the Danube. This is an area settled by the Scordisci[36] – the most southerly enclave in the eastern parts of the La Tène Culture territory. The Scordisci are one of a small number of Eastern Celtic tribes for which we have relatively numerous and detailed records found in ancient authors.

Further references to the Scordisci date from a hundred years later and concern their alliance with the Bastarnae[37] during the wars waged against the Illyrian tribes of the Dardani.[38] It is also known that at the end of the 2nd century BC the Scordisci clashed with the Cymbri[39] who had made their way into the region from the north and soon afterwards took up raiding Greece and destroyed the armies of the Roman consul Gaius Porcius Cato.[40] The Romans succeeded

[27] Stöllner 1999.

[28] Ramsl 2012.

[29] See e.g. Collis 2003, 139. – See also the contributions by Attila M. Horváth, Gabriela Brezňanová, Aurel Rustoiu and Piotr Kieca in this volume.

[30] See the contributions by Kristian Elschek, Peter C. Ramsl and Karol Pieta, Peter Barta and Lucia Benediková in this volume.

[31] See the contributions by Peter C. Ramsl and Zuzana Zetochová in this volume.

[32] See e.g. the contribution by Przemysław Dulęba in this volume.

[33] See the contribution by Iosif Vasile Ferencz, Cristian Constantin Roman and Ionuț Mihai Dealmar Socol in this volume.

[34] See Tomaschitz 2002, 99–127.

[35] See Tomaschitz 2002, 128. – Cf. also Hubert 1934, 42.

[36] Popović 2012. – See also the contribution by Marko Dizdar and Ivan Drnić in this volume.

[37] Jankuhn, Neumann, Wenskus 1976. – Babeș 2012a.

[38] Burian 1997.

[39] Tomaschitz 2012c.

[40] Nadig 2001.

in stemming the tide of the Scordisci in wars waged in 113–112 and 101 BC; the political independence of the Scordisci came to an end after their conquest by the Romans early in the 1st century BC.

Ancient authors place the Celtic tribes of the Taurisci[41] and Carni[42] in the eastern Alpine region across the border from the tribal alliance of the Scordisci, and even farther to the west, a federation of various tribes headed by the Celtic Norici,[43] known to the Romans as *Regnum Noricum*.[44] Also named in the context of the Taurisci are the Celtic Boii[45] tribes, which at the beginning of the 2nd century BC reportedly migrated from northern Italy and established themselves on the middle Danube.[46] Many researchers agree that the currently available evidence, both archaeological and historical, locates the seats of the Boii in the Bohemian Basin.[47] A term linked to this settlement is "the Boii coinage zone" describing an area of the La Tène Culture, which, in addition to the Bohemian Basin, includes Moravia, southern Poland, southwestern Slovakia and northeastern Austria.[48] This is a culture group within which, in the period 3rd–1st centuries BC, a local coinage system may be seen to develop, based mainly on gold. At the same time, the term "Boii coinage" does not correspond to that ethnic group (the Boii).[49]

Other Celtic tribes established in central Europe recorded in the written sources include the Anarti,[50] Eravasci[51] and Cotini.[52] The former are described in the context of an unspecified region found on the northern border of the territory settled by the Dacians. The references to the Eravasci and the Cotini date to the Roman period, placing the former in Transdanubia and the latter in the mountain region of northern Slovakia. Many researchers have identified the seats of the Cotini with the archaeological Púchov Culture[53] which evolved from the local cultures of the late Hallstatt period after the arrival of the earliest wave of a Celtic population from the west.[54] Its successive developmental phases span the La Tène period and a part of the Roman period. At the time of its greatest expansion, the territory of the Púchov Culture extended to areas in southern Poland and northern Moravia. This culture unit displays many features found in other culture groups in the region of central Europe to the north of the La Tène Culture territory. They exhibit strong local traditions alongside evidence of close ties to the La Tène Culture.

During the Middle La Tène period (second half of the 3rd century – nearly the whole 2nd century BC) the La Tène Culture in central Europe is once again subject to significant changes, well reflected in the archaeological material. This is the time of the construction of the great undefended open settlements, some a few dozen hectares in area, serving as local administrative, economic and religious centres. From the two most outstanding sites these settlements are referred to as type Roseldorf-Němčice.[55] Many of these centres struck their own local coinage, such as, for example, the "Boii coinage" mentioned earlier.

The Middle La Tène period is a time of changes in mortuary practices: cemeteries can no longer be recovered by the archaeological method. The earlier traditions may be seen to continue in some regions only, as e.g. in the Moselle drainage[56] and in the eastern Alpine region.[57] These cemeteries are in use until the final phase of the La Tène Culture, and not infrequently, carry over to the Roman period. Such situations have also been noted in the territory of the Scordisci and the Taurisci.[58]

The second half of the 2nd century BC ushers in a new phase in the history of the La Tène Culture – the oppida period. This is a time of the construction, mostly in the western regions of the La Tène Culture territory, of a large number of sprawling hilltop settlements, some of them even several hundred hectares in area, enclosed by mighty walls, a structure described by Caesar in Gaul as "oppidum".[59] In central Europe only a handful of oppida have been identified (e.g. at Stradonice,[60] Třísov,[61] Staré Hradisko,[62] Bratislava),[63] in some regions – e.g. in southern Poland – none have been found. Instead, there is larger number of smaller hilltop settlements of several hectares, quite often without traces of a more intensive occupation. Their most likely interpretation is that of a refuge settlement.[64]

The transition from undefended open settlements to defended hilltop settlements might be related

[41] Sitzmann, Tausend 2005. – Grassl 2012b.

[42] Hubert 1934, 33–34, 84. – See also the contribution by Boštjan Laharnar in this volume.

[43] Ubl 2002, 324. – Dobesch 2012b, 1566–1567.

[44] Dobesch 2012b.

[45] Amann, Lindinger 2012. – See also various contributions in Karwowski, Salač, Sievers 2015.

[46] See Tomaschitz 2002, 85–87.

[47] Amann, Lindinger 2012, 202. – Cf. also Salač 2015.

[48] Militký 2015. – See also Kolníková, Kos 2012.

[49] See also the contribution by Jiří Militký in this volume.

[50] Lindinger 2012.

[51] Fitz 2012.

[52] Grassl 2012a.

[53] Pieta 2012b.

[54] See the contribution by Karol Pieta, Peter Barta and Lucia Benediková in this volume.

[55] Salač 2011, 35–37.

[56] Collis 2003, 139. – Miron 2012, 1867.

[57] Guštin 2012, 1823.

[58] Guštin 2012, 1823. – Popović 2012, 1724.

[59] Fichtl 2012.

[60] Drda, Nemeskalová 2012.

[61] Karasková 2012.

[62] Čižmář 2012.

[63] Pieta 2012a.

[64] See Karwowski 2015, 219–220.

to changes of a military-political character. In the eastern reaches of the La Tène Culture this shift coincides with the migration of the Cymbri, known from the written record.[65] The homeland from which they set out in the second half of the 2nd century BC was probably in Jutland which is known to the ancient authors as "chersonesus Cimbrica".[66] According to their accounts the Cymbri traversed the lands of the Celtic Boii and were joined in their trek by other tribes. Archaeological evidence suggests that their route at first ran through the Elbe drainage, on to Upper Silesia where at the end of the 2nd century BC we find evidence for the decline of the earlier La Tène Culture settlement.[67] Further stages of the migration of these peoples southward would be documented in the archaeological record by a horizon of destruction and changes in the settlement situation in western Slovakia and in Moravia.[68] Next, the Cymbri are mentioned at the confluence of the Drava with the Danube in the context of their clashes with the Celtic Scordisci.[69]

A key change in the archaeological situation in Central Europe is observed soon after the middle of the 1st century BC when the La Tène Culture finally loses in significance and its settlement structures fell into decline. This state of affairs presumably had something to do with the military-political activity of Rome, although its main focus was western reaches of the La Tène Culture territory; socio-economic issues may have been another factor, less easily detected in the archaeological material. A role in these processes could have been played by the movement of tribes identified with Early Germanics[70] in central Germany and the northern reaches of the Bohemian Basin, areas previously under La Tène Culture settlement. Moreover, there is reference in the written sources to the military expansion of the Dacians led by Burebista directed against the Celtic Boii and Taurisci[71] under their leader Critasirus.[72] After their defeat in this collision with the Dacians, their territory is described by Pliny as *deserta Boiorum*,[73] thus, presumably, a depopulated area. There is evidence in the archaeological record of a full decline of La Tène Culture settlements in much of the region on the Danube, which confirms the written record.

During the second half of the 1st century BC, areas under the La Tène Culture settlement lying to the east of the Rhine and south of the Danube became part of the newly established Roman provinces. From this time onwards the local population would see its culture gradually succumb to the process of Romanization.[74] Depending on many different factors, this process unfolded in individual regions with a different intensity. Also, the introduction of the new political order must have not gone hand in hand with military action everywhere.

The new political and cultural reality that emerged by the late 1st century BC in central Europe as a result of the historical events described earlier finds a strong reflection in the archaeological record. Among the culture groups, or tribes, which had functioned earlier within the broadly conceived La Tène Culture traditions, only a handful were to some extent independent from the new influences.

As compared to the written record relating to Celtic tribes, the written sources concerned with the region found north of the territory inhabited by the bearers of the La Tène Culture is much more limited. Any references of use to us in this respect are limited to the peoples who had in some way come into contact with cultures of the Mediterranean basin. This is mostly true of the tribes of the Bastarnae and Cymbri which arrived from the north, and, in the later period, of the Suebi.

The Mediterranean world was brought into contact with the inhabitants of the more remote reaches of the northern part of central Europe only in the late 3rd century BC. One of the earliest records concerns the tribe of the Bastarnae,[75] who migrated from the far north and are recorded on the lower Danube around 230 BC. Their earlier history, including also the events attending their migration, can be reconstructed only from the archaeological evidence. The finds recorded in the drainage basins of the Odra and Vistula show that human groups could have expanded from territories linked with the early Germanic settlement on the lower Elbe.[76] Many researchers have connected these events with the emergence of a new archaeological unit between the Eastern Carpathian arc and the lower Dniester – the Poieneşti-Lukaševka Culture.[77] Its archaeological assemblages differ widely from the materials identified with the Geto-Dacian settlement noted earlier in this region, displaying evident links with the Jastorf Culture[78] established in the Elbe drainage. It is worth noting that the ancient authors are not clear as to the ethnic origin of the Bastarnae, but over the two centuries which followed, these tribes

[65] Grünewald 2000. – Martens 2000, 500–502 and Fig. 48. – Tomaschitz 2012c.

[66] See e.g. Neumann 2000, 493–494.

[67] Rudnicki 2014, 51–52. – Cf. also Martens 2000, 501 and Fig. 48/2.

[68] Pieta 2010, 85. – Cf. also Martens 2000, 501 and Fig. 48/2–3.

[69] Popović 2012, 1723. – Cf. also Martens 2000, 501.

[70] Steuer 1998, 159–160.

[71] Babeş 2012b, 396.

[72] Tausend 2005, 317. – Guštin 2006, 1662.

[73] Urban 2012a.

[74] See Spickermann 2003. – Gleser 2012.

[75] Jankuhn, Neumann, Wenskus 1976. – Babeş 2012a.

[76] Kaczanowski 2005, 487–488.

[77] Babeş 2012d.

[78] Müller 2000.

become an important element of political changes in the Balkan Peninsula.

Also found in the written sources are references to the first armed confrontation of the Romans with tribes originating from the territory to the north of the Celtic world. In 113 BC two Roman legions led by the consul Gnaeus Papirius Carbo[79] were defeated in the Eastern Alpine region at *Noreia* (somewhere in modern-day Carinthia)[80] the capital of the Celtic kingdom of the Norici.[81] In this confrontation the Romans had taken up arms against the Cymbri arriving from the north, i.e. those tribes whose march across central Europe could have caused changes in the settlement structure of the La Tène Culture described earlier. However, it is notable that from the time when the Cymbri found themselves in the eastern Alpine region references to this people in written sources are very scant. On the other hand, there is evidence that after their military success at *Noreia* the Cymbri made their way west and that, reinforced there by groups of the Celtic Helveti,[82] they crossed the Rhine in 109 BC and started the conquest of Gaul.[83]

Another development associated with the expansion to the territory of Gaul is important for the Late Iron Age of central Europe. This is the expansion dated to the end of the 70s BC of the Germanic Suebi[84] led by Ariovistus[85]. These events are thought to have been the result of conflicts between Celtic tribes living in Gaul. The arrival of Germanic tribes to the lands on the Rhine and in Gaul is reflected by changes in the structure of settlement in the Elbe drainage, the territory settled by the Jastorf Culture people. At this time an evident thinning of settlement is observed in the archaeological record, and in some areas, even its complete decline.[86]

The impact from the vast territory inhabited by the Celts who are identified with the archaeological La Tène Culture eventually contributed to the emergence in the northern parts of central Europe of an entirely new culture model (Fig. 2). This process, referred to as *Latenization*,[87] evidently intensified over the last two centuries BC and is well reflected in the archaeological record. In areas subject to particularly pronounced influences from the La Tène Culture the development of these new cultures is evidently much more advanced than what it was during the preceding centuries. On the other hand, the impact in question was restricted in its range. It is not apparent in the forest zone of eastern Europe or in much of northeast Europe, where the local cultures differ little in the level of their development from what is seen at the beginning of the Iron Age. Likewise, areas in southeastern Europe were subject to altogether different influences. The broad region of the Black Sea steppes had been occupied by nomadic tribes arrived from Asia, first the Scythians,[88] and subsequently the Sarmatians,[89] peoples familiar to the ancient authors.

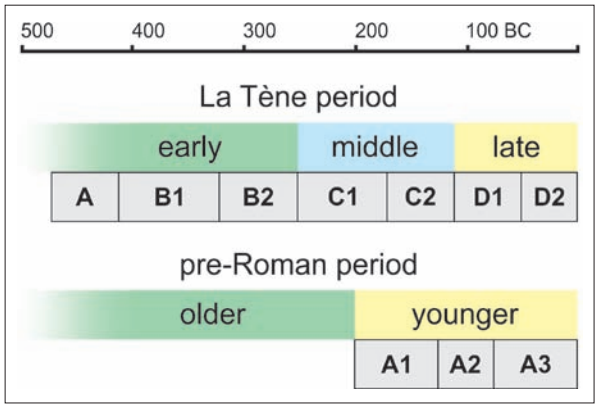

Fig. 2. Comparison of chronological systems used for the La Tène Culture and for cultures subjected to the process of *Latenization* (graphics: M. Karwowski).

The dynamic processes within the La Tène Culture and in areas affected by the *Latenization* process observable in the archaeological material are not the same. This makes for some difficulty in synchronizing the periodization of the La Tène Culture with systems used for dating the culture phenomena in regions outside the La Tène Culture territory. Thus, in the local (mainly Polish) archaeological traditions, the period of the Late Iron Age which coincides with all the phases of the La Tène period is customarily referred to as the Pre-Roman period (Fig. 3).[90] However, there is some divergence in the chronological taxonomy mostly as regards the Older Pre-Roman period (until the turn of the 3rd and 2nd centuries BC) when the local culture model is still the one which took shape in the Early Iron Age and contacts with the world of the La Tène Culture are still rather limited. For the Younger Pre-Roman period, i.e. the time of a marked intensification of the *Latenization* process, synchronization of different systems of periodization poses no greater difficulty. Nevertheless, despite this, for some areas – mainly the territory of the Przeworsk[91] and the Oksywie[92] cultures, different names are used to denote individual chronological phases.

[79] See Grünewald 2000, 498.

[80] Strobel 2002, 322–323. – Hainzmann 2012.

[81] Dobesch 2012b. – See also Ubl 2002, 324–326.

[82] Hermann 1999, 345–347. – Kaenel 2012.

[83] Grünewald 2000, 498. – Martens 2000, 501–502.

[84] Scharf 2005a, 188.

[85] Callies 1973, 407.

[86] Müller 2000, 53.

[87] See e.g. Kaczanowski 2005, 486–487. – Szabó 2012.

[88] Klinkott, Rolle 2005. – Rolle 2012.

[89] Eggers, Ioniță 2004.

[90] Dąbrowska 1988, 62. – Kaczanowski, Kozłowski 1998, 166, 214.

[91] Dąbrowska 1988. – Meyer 2012.

[92] Dąbrowska 2003.

Fig. 3. Principal archaeological cultures of the late Iron Age in central Europe (graphics: M. Karwowski).

In the northern reaches of Late Iron Age central Europe outside the reach of the La Tène Culture it is basically possible to identify two main culture regions. For the duration of this period, in the lower and middle Elbe drainage there is a continuous development of the Jastorf Culture, while in the drainages of the Vistula and the Odra at the beginning of the 2nd century BC, the new formations which come into being are the Przeworsk Culture and the Oksywie Culture.

The origins of the Jastorf Culture have been traced to the local cultures of the Hallstatt period, which gradually – like other culture units of central Europe – undergo *Latenization*.[93] The Jastorf Culture may be separated into several local groups which, outside its cradle on the lower and middle Elbe drainage, may be seen to exert a visible influence over areas in central Germany, northern Bohemia, and western Poland. It is worth recalling the links of this culture unit with the Poieneşti-Lukaševka Culture mentioned earlier.

Jastorf Culture is known mostly from cemeteries.[94] Some of these number a few hundred, and even over a thousand urned cremation burials. A particularly characteristic feature is the practice of separate cemeteries for women and men. Also noted in the Jastorf Culture territory are well-preserved bodies of people found in bogs interpreted as human sacrifices.[95] Studies show that the victims had died a violent death, garrotted or hanged, and were next deposited in a bog or peat. Similar punitive practices used among the *Barbarians* are mentioned in the writings of the Roman historian Tacitus.[96] Bog bodies are not confined to the territory of the Jastorf Culture, they are also known – and in a larger number too – from areas found further to the north, particularly Jutland.[97]

In the Younger Pre-Roman period some parts of the Jastorf Culture territory undergo evident change, which is manifested as a considerable thinning out of the settlement network.[98] These processes coincide to some extent with the pressure exerted by the Suebian tribes on Gaul mentioned earlier, and are likely to be

[93] Müller 2000, 47.

[94] Müller 2000, 47–48.

[95] Pieper 2002, 223.

[96] See e.g. Saar 2003, 113.

[97] Pieper 2002, 223.

[98] See also the contributions by Milena Teska, Artur Sobucki and Maciej Karwowski and Przemysław Niedzielski in this volume.

related to these events. Shortly afterwards – at the transition from the Pre-Roman to the Roman periods – the Jastorf Culture undergoes a further transformation, leading to the emergence in its territory of the so-called Elbe cultures (or Elbe Germania).[99] On the evidence found in the ancient written sources, many researchers have come to identify the originators of this new culture cycle as the Germanic Suebi.[100]

The archaeological situation noted in the Younger Pre-Roman period in central Germany is rather complicated. This is a zone of contact where we find evidence of impact both from the La Tène Culture and the Jastorf Culture. At the end of the Younger Pre-Roman period it is almost certain that the region receives new population groups deriving from the drainage of the lower Elbe. Visible at this time is the disappearance of elements typical for the La Tène Culture, and the rise of large cemeteries, which, while they admittedly hark back to the model characteristic for the Jastorf Culture, are quite different in their character. Materials of this sort, known also from the northern parts of the Bohemian Basin, have been described variously as the Großromstedt horizon/culture,[101] and linked mostly to the migration of the Germanic tribes to the south.[102]

The beginning of the Younger Pre-Roman period is also the time of the emergence of the Przeworsk and the Oksywie cultures. This process is associated with fundamental changes which make their mark in the archaeological material recovered in the drainages of the Odra and the Vistula. Culture units of the earlier period – mainly the Pomeranian Culture[103] – have now given way to two cultures with quite similar attributes. These new cultures presumably took shape as a result of the transformation of the pre-existing substrate under the substantial impact of the La Tène Culture from the south and the Jastorf Culture from the west. In the case of the latter the process involved would have been one of destabilization, caused by the migration of tribes formerly established in the Elbe drainage when they started moving out of the region in a southeasterly direction. This would be evidenced by finds of artefact forms typical for the Jastorf Culture, which are thought by many researchers to mark the route of the migrations of the Bastarnae known from the written sources.

Much of the Odra and the Vistula drainages in central and southern Poland was occupied by the Przeworsk Culture.[104] During its early phases there is evidence of several migration episodes, in many directions: southeastward, to the upper Dniester region; northwestward, to Jutland, and westward, to central Germany. In the 1st century BC in western Lesser Poland a local culture group came into being characterized by the co-occurrence of forms typical for the Przeworsk and La Tène Cultures. Many researchers have argued that this group is evidence of the coexistence of people of different ethnic stock. The Oksywie Culture has a much smaller territory, which takes in the Polish Pomerania and some lands adjacent to it. The archaeological materials attributed to the Przeworsk Culture and to the Oksywie Culture display so many shared attributes that some researchers have questioned the legitimacy of treating these two units separately. One of the more prominent features would be the practice in both these cultures of the cremation rite and unurned burial in pits with grave goods. The latter were burnt on the pyre with the body, some eg. weapons, subject to ritual destruction.[105]

The Przeworsk Culture exists during the Younger Pre-Roman period but has a much longer duration, continuing throughout the Roman period and even during the early phase of the Migration period. The Oksywie Culture goes into decline at the transition from the pre-Roman to the Roman periods and contributes to the emergence of the Wielbark Culture,[106] an archaeological unit identified with the Goths.[107]

In the region found to the east of the Przeworsk Culture territory – mostly in the middle Dnieper drainage – the Younger Pre-Roman period is the time of the emergence of the Zarubintsy Culture[108] evolved from the local traditions with some contribution of several outside elements, the foremost of them being *Latenization*. In addition to this process, there was some Scythian impact from the southeast, and a series of stimuli from the west: from the territories of the Pomeranian Culture in Poland and the Jastorf Culture in eastern Germany. At the same time, the influence from the La Tène Culture territory did not give rise within the Zarubintsy Culture to a culture model comparable to systems in existence at that time in the previously discussed regions of central Europe.

A still different archaeological situation is observed on the northeastern periphery of central Europe.[109] The region between the lower Vistula and the Neman rivers is occupied by the West Baltic Barrows Culture,[110] going back in its origins to the Early Iron Age. New trends associated with La Tène Culture influences leave hardly a mark, and what

[99] Müller 1998, 135–136.

[100] See Mildenberger 1989, 112. – Müller 1998, 136. – Scharf 2005b.

[101] Droberjar 2002, 241–242.

[102] Droberjar 2002, 241.

[103] Kaczanowski, Kozłowski 1998, 183–186. – See also the contribution by Przemysław Dulęba in this volume.

[104] See also the contribution by Andrzej Michałowski and Milena Teska in this volume.

[105] See also the contribution by Emilia Smółka-Antkowiak in this volume.

[106] Mączyńska 2007.

[107] Bierbrauer 1998, 407–415. – Pohl 1998, 427–430. – See also Mączyńska 2007, 15–17.

[108] Dąbrowska 2007.

[109] Cf. Kaczanowski 2005, 498–499.

[110] Kaczanowski, Kozłowski 1998, 187–188, 225.

little evidence of outside impact has been recovered presumably has something to do with the trade in Baltic amber. The broad expanses of the forest zone to the east of the West Baltic Barrows Culture were influenced by a number of culture groups also established in the region since the Early Iron Age. Changes potentially associated with the *Latenization* process are virtually imperceptible in the archaeological material. Similarly negligible are the differences between individual culture groups in this zone, which have been separated mostly on the evidence of pottery typology criteria. The most westerly group is the Brushed Pottery Culture.[111]

The next period of central European prehistory brings yet another, strong wave of influence comparable to the *Latenization* – also directly associated with political developments in the Danube region. Essential in this process were changes on the political map of Europe effected by Roman conquests in the times of Augustus. The borders of the Roman Empire have now been set on the Rhine and the Danube. The term currently used in archaeology in referring to the territories found to the north and east of these borders is *Barbaricum*,[112] introduced by Roman historians in Late Antiquity. At the beginning of the 1st century AD, under the provincial Roman impact, a new culture model starts taking shape in this region.[113] Nevertheless, the basis for this new model is cultures previously subjected to *Latenization* which led to the emergence of an economic and cultural system, operating, with minor changes only, until the end of Antiquity.

[111] Nowakowski 2005.

[112] See e.g. Kaczanowski, Kozłowski 1998, 213–214. – Droberjar 2002, 15. – Lund Hansen 2003, 90.

[113] See e.g. Kaczanowski 2005, 500–513.

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GRAVES

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ARCHAEOLOGICAL STUDIES OF THE LATE IRON AGE IN CENTRAL EUROPE
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CREMATION, WEAPON GRAVES AND BI-RITUAL GRAVES OF THE LA TÈNE PERIOD IN NORTH-EASTERN AUSTRIA

PETER C. RAMSL [1]

Abstract:
Contrary to the traditional and frequently repeated research opinion, cremation graves are no rarity in the early La Tène period (LT A) in Austria; rather, they occupy a special position in the funerary practice. From La Tène B onwards, a new and different burial pattern with weapons emerges. From La Tène B2 into the middle La Tène period inhumation burials remain dominant.

Keywords:
La Tène period, Austria, cremation graves, weapon graves, bi-ritual graves

INTRODUCTION

J. Meduna noted already in his 1962 paper 'Die Brandgräber aus der Latènezeit in Mähren'[2] that cremation graves occur in all phases of the La Tène period. For eastern Austria, this topic has not been addressed till now. In the first part of this article, some aspects of cremations will be discussed; in the second part, graves with weapons will be the subject.

CREMATION GRAVES

Sources and source critique

The present study is also a result of the analyses of the cemeteries Ossarn (OSS) and Oberndorf (OBD) in the river valley of the Traisen, Lower Austria.[3] Further data on burials from other cemeteries were taken from the literature, in particular the journal 'Fundberichte aus Österreich'. The description of cemeteries in the latter journal, however, lacks data on individual graves and associated grave goods (Fig. 1). Even important cemeteries such as Franzhausen, Walpersdorf and Wöllersdorf can therefore only be treated summarily and cannot be fully integrated into a detailed analysis.

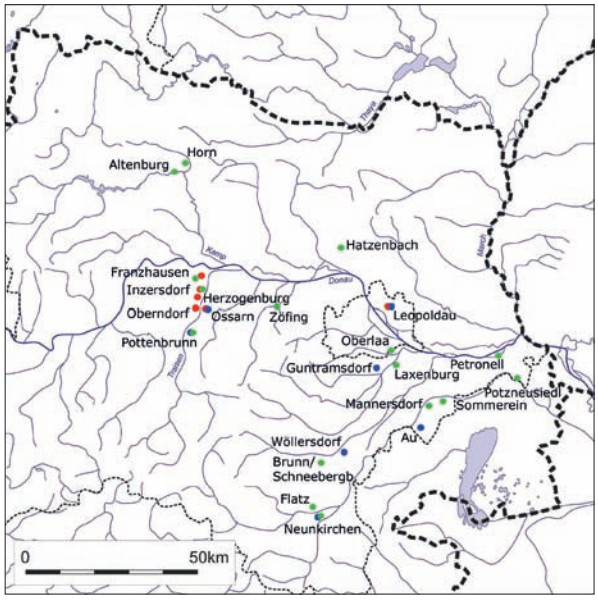

Fig. 1. Map with mentioned sites (PCR).

La Tène A (Fig. 2)

As noted above, several large cemeteries of this period can only be partially used for the analysis. According to the literature,[4] 63 cremation graves were excavated before 1992; according to the finds lists, the number of graves might rise to 77. The unbroken transition from the late Hallstatt to the early La Tène period presents a further problem at this necropolis. Franzhausen (FH) is the cemetery with the largest number of cremation burials in the phase La Tène A, followed by Walpersdorf (WALP) with 13 and Oberndorf (OBD) with seven cremation burials.

[1] This study was written as part of the SASPRO project 1340/03/03 of the Slovak Academy of Sciences, co-funded by the Marie Curie actions and the FP 7 of the European Union.

[2] MEDUNA 1962, 135.

[3] Funded by the Austrian Science Fund (FWF), P23517-G19.

[4] NEUGEBAUER 1993, 447.

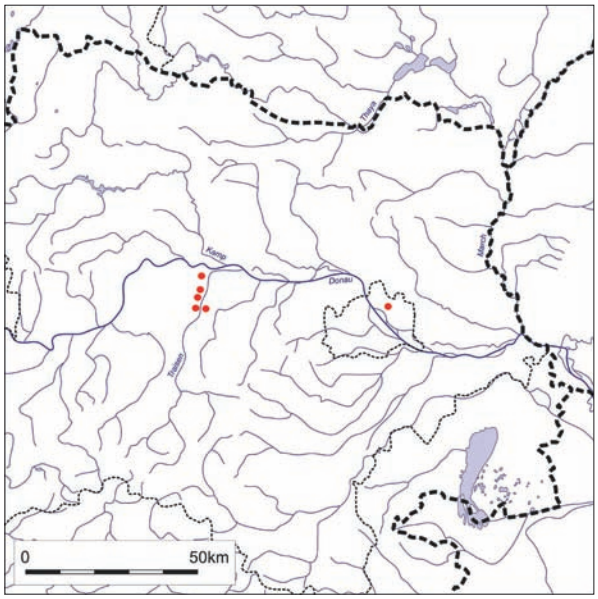

Fig. 2. Distribution of cremation graves at La Tène A sites (PCR).

Concerning the type of deposition, the following observations have been made: at the cemetery of Oberndorf, 4 out of 7 cremation burials were scattered in a pit without urns. In one case (1982/3), an organic urn can be assumed, because the cremated bones were limited to a small area. Two urn burials and one grave-pit without human remains were also found at the cemetery. The cemetery of Walpersdorf included two scattered cremations and eleven urn burials. Bi-ritual graves are particularly noteworthy, such as Oberndorf 2004/44 (inhumation grave with urn burial), Ossarn (OSS) 1966/1 (inhumation grave and scattered cremation – Fig. 3) and Ossarn 1984/6a (inhumation grave with two urns, containing one and two individuals, plus one scattered cremation – Fig. 4). Grave 1996/282 from the cemetery of Inzersdorf (INZ) contained two cremation burials (Fig. 5).[5] Only one of the burials, Herzogenburg-Kalkofen (HZB), Obj. 1,[6] included weapons. Only grave Herzogenburg-Kalkofen, Obj. 1 was surrounded by an almost square ditch.

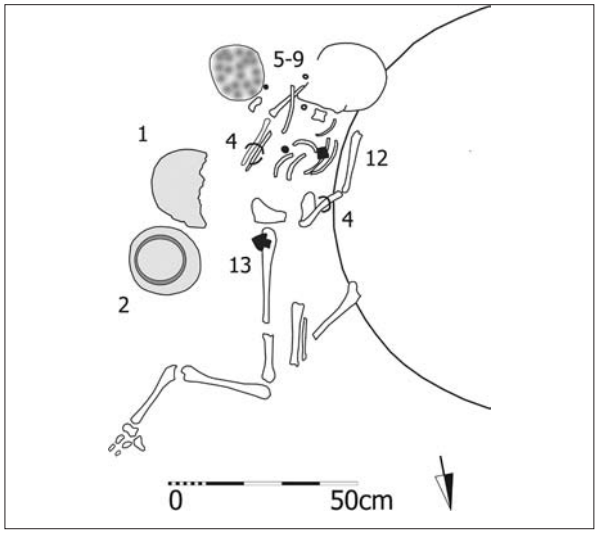

Fig. 3. Grave Ossarn 1966/1 (K. Engelhardt, P. Ramsl).

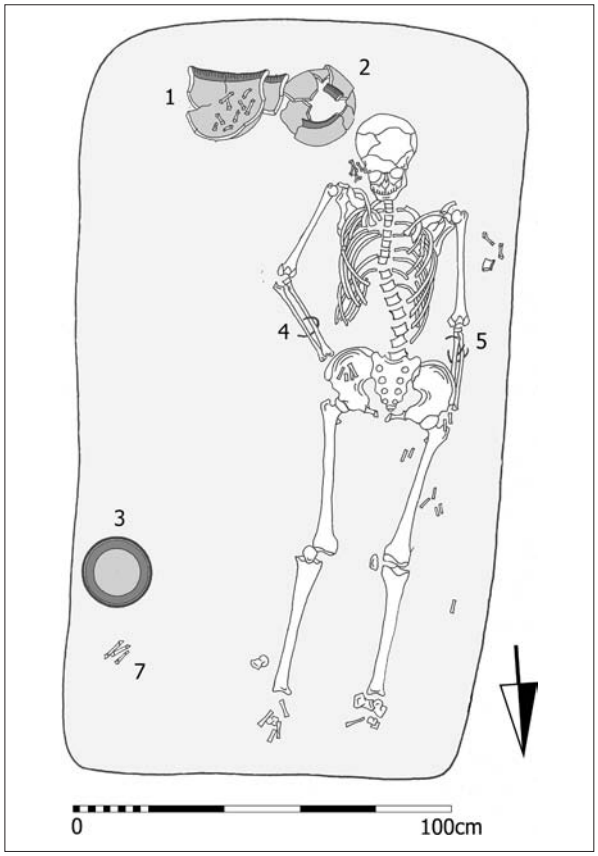

Fig. 4. Grave Ossarn 1984/6a (A. Gattringer, P. Ramsl).

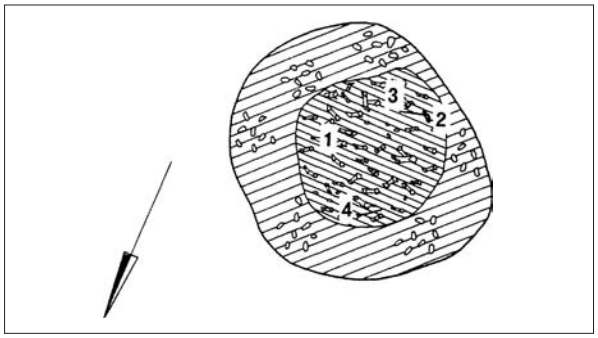

Fig. 5. Grave Inzersdorf/282 (A. Gattringer).

La Tène B1 (Fig. 6)

The data for this phase comes mainly from the publication of the cemeteries of Pottenbrunn (POT)[7] and Au am Leithaberge-Kleine Hutweide.[8] Eleven

[5] Neugebauer 1996, 161.

[6] Eibner 1981, 30.

[7] Ramsl 2002.

[8] Nebehay 1973b.

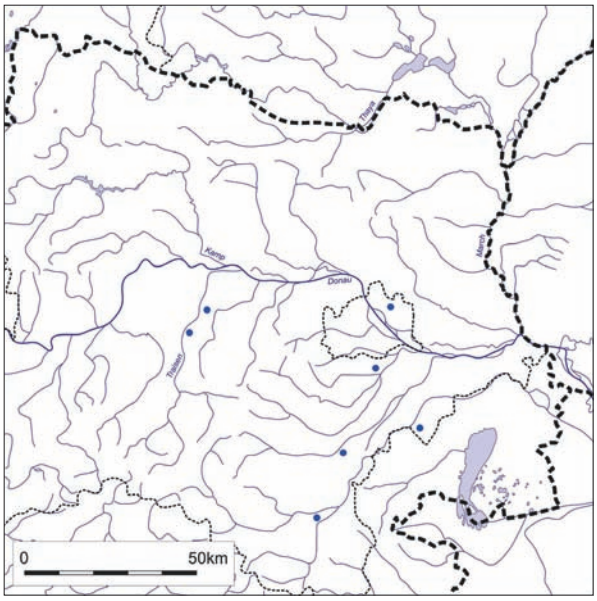

Fig. 6. Distribution of cremation graves at La Tène B1 sites (PCR).

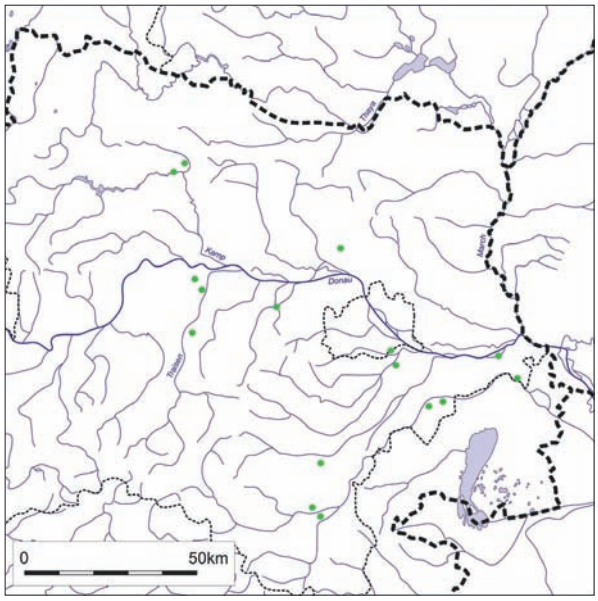

Fig. 7. Distribution of cremation graves at La Tène B2/C sites (PCR).

cremation graves were found at Pottenbrunn (POT) and nine at Au/Lbg. Ossarn included three and Guntramsdorf two cremations. Grave 2 at Au (Kleine Hutweide) held the cremated remains of two persons. In total, twice as many scattered cremations as urn burials could be observed. Seven pits similar to graves contained no human remains.

Four of the graves were surrounded by almost square ditches; two of those (POT 854 and 855) had postholes inside these surroundings. Tomb 233 from Pottenbrunn is remarkable. At first sight, it is an inhumation burial placed inside a surrounding ditch with postholes in the corners. The grave pit, which is not centrally located, cuts a central pit (232 Verf.), which has been interpreted as a 'sacrificial pit' or as part of the funerary preparation area.[9] Comparing the whole context (grave area with surrounding ditch and corner posts, central pit) to the cremation graves at Pottenbrunn (grave 854, 855, 972 and, above all, grave pit 961, in which cremated remains are absent), an interpretation as a cenotaph seems likely.

Cremation graves of this phase include four scattered cremations, one urn and three grave pits without human remains at Au/Lbg. (Mühlbachäcker) as well as six scattered cremations, two organic containers, three grave pits without human remains and three unclear contexts at Pottenbrunn (as far as could be ascertained). Wöllersdorf and Wien-Leopoldau each had only one urn burial.

A striking new funerary pattern emerges in this phase: 12 out of 25 graves of this phase were furnished with weapons. Two graves, Au 6 and Au 13, contained a duplicated set of weapons, although only one person was buried in each grave.

[9] Ramsl 2002, Fig. 132. – Ramsl 2012, 186–187.

Phases LT B2 to LT C (Fig. 7)

In this phase, the prevalence of inhumation graves over cremation graves is remarkable, as far as the data can be trusted. North of the Danube, in this sub-period the orientation of graves changed from south–north to north–south. Cremation graves (primarily antiquarian finds) appear singularly, for instance at Flatz,[10] Horn,[11] Sommerein,[12] Zöfing[13] and Vienna, 10th district/Oberlaa.[14] Large cemeteries such as Pottenbrunn, Mannersdorf (MD) and Guntramsdorf include up to three cremations.

Cremation graves with weapons and with or without cremated human remains

The sudden (?) appearance of weapon graves in the early phase of La Tène B1 is remarkable. In absolute dates, this happens between 400 and 350 BC and is associated with an increased mobility and migration in the Celtic world. The postulated 'mobile group of warriors' was equipped with rather short and narrow swords, decorated by a symmetrical pair of dragons or griffons at the opening of the scabbard. It is thus possible to draw a connection between the new burial custom and warlike events of this period. Warriors who died in these campaigns or as mercenaries could be cremated by their comrades and brought home in this state from afar. This hypothesis is strengthened by the fact that almost no physical injuries have been

[10] Haider 1984.

[11] Maurer 1976.

[12] Schutzbier 1983, 254–255.

[13] Neugebauer 1978.

[14] Pittioni 1930, 49.

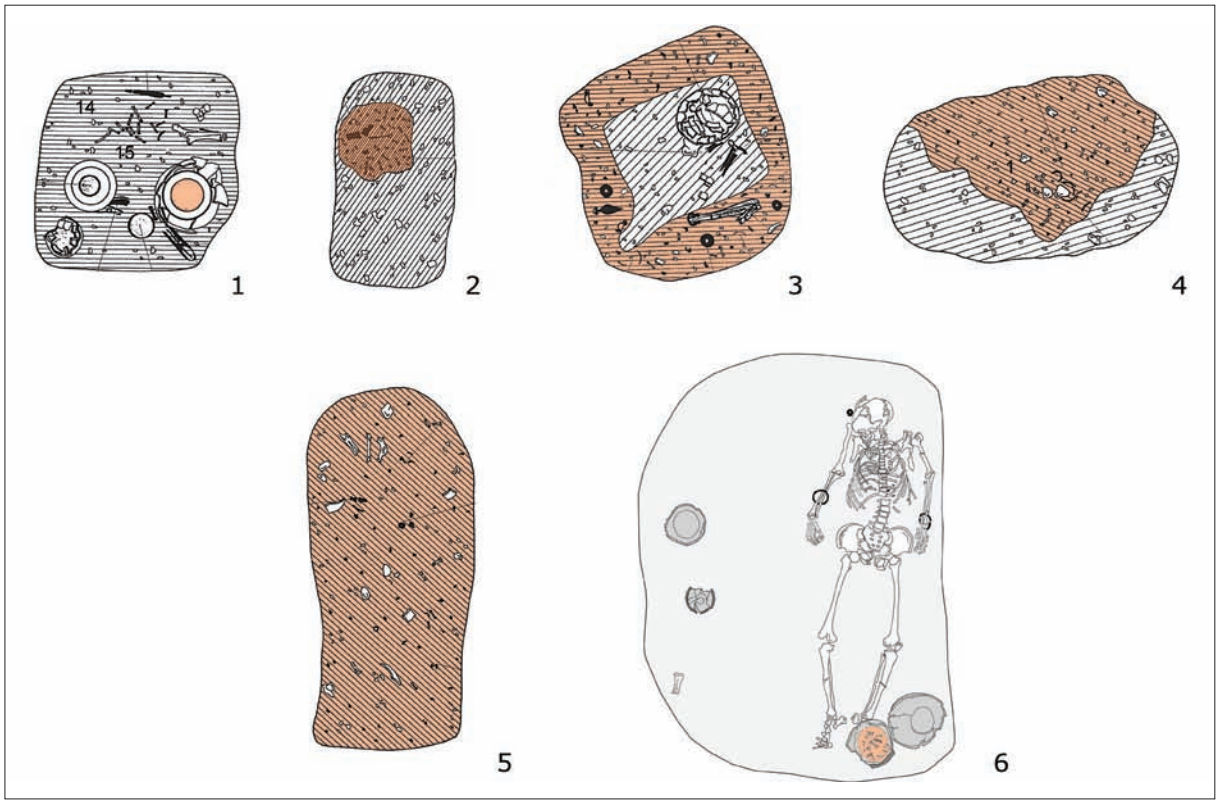

Fig. 8. Possible ways of depositing cremated remains (A. Gattringer, P. Ramsl).

observed on bones from inhumation graves of this period that would suggest military conflicts.[15] War must have been an 'external event'.[16] Grave pits that contain grave goods, but no human remains, may also point in this direction. Especially at Pottenbrunn, the pits 23, 232, 961 and 1006 may be interpreted to represent cenotaphs, memorials of warriors who died in foreign lands. Duplicated weapon sets in graves, as noted in graves 6 and 13 at Au, might have also served this purpose. This practice would assume an ideology of comradeship (brothers-in-arms, Dioscuri), as suggested by M. Egg.[17]

In principle, the following ways of depositing cremated remains can be observed:

– Ceramic urns: various vessel forms are used. Bottle-shaped vessels are most frequent, e.g. in POT 48 (Fig. 8/1), but pots and ceramic fragments are also common (e.g. OSS 1984/6);
– Organic urns: were most likely present when the cremated remains take up a well-defined, limited area. Different types of organic containers can be reconstructed from the shapes: small boxes (POT 972 (Fig. 8/2), 975, 1006), buckets or organic containers. The scattered cremation in grave POT 400 is interesting in this context, as a fibula, undamaged by fire, was placed on top of the cremated remains. It could have served to fasten a cloth in which the cremated remains were wrapped;[18]
– Scattered cremations: cremated remains deposited without an urn or organic container, but scattered directly in the grave pit or mixed into the grave fill;
– Outside a wooden box, in which at least a part of the grave goods was placed (e.g. POT 975 – Fig. 8/3);
– Within a limited area (e.g. POT 340 – Fig. 8/4);
– The entire area (e.g. POT 1002 – Fig. 8/5)

Furthermore, there are several types of combinations of inhumations and cremation graves:

– Double/multiple cremations, e.g. Inzersdorf, grave 282[19] (Fig. 8/6) ; Au/Lbg.-Kleine Hutweide, grave 2;[20]
– Cremation(s) in addition to an inhumed body, e.g. Pottenbrunn, grave 400; Oberdorf, grave 2004/44 (1 inhumation, 1 boxed cremation); Ossarn, grave 1966/1 (urn burial next to inhumation) and grave 1966/4a (inhumation with two urn burials and one scattered cremation).

WEAPON GRAVES: ANALYSIS OF CEMETERIES

The state of research varies between cemeteries, as already mentioned above; only a few have been fully excavated. Nevertheless, this is an attempt to analyse weapon graves, particularly from the larger,

[15] Novotny in prep.

[16] Ferguson, Whitehead 1992.

[17] Egg 1999, 344–355.

[18] Ramsl 2002, Pl. 55.

[19] Neugebauer 1996, 161 and Pl. 20.

[20] Nebehay 1973b, 5–6.

fully published cemeteries. The analysis will begin with early cemeteries, dating to La Tène A, such as Oberndorf, Ossarn, Inzersdorf-Walpersdorf, Leopoldau, Herzogenburg-Kalkofen (Fig. 12) and Kuffern.

Weaponry

26 graves with weapons were amongst the selected cemeteries. A three-fold division amongst the warriors' equipment is striking in the La Tène A phase (Fig. 9). There are burials with one to three spearheads (Category A), a combination of only one spear- or lancehead with a sword (Category B) and burials with only a sword (Category C). A wooden shield for protection can also be assumed.

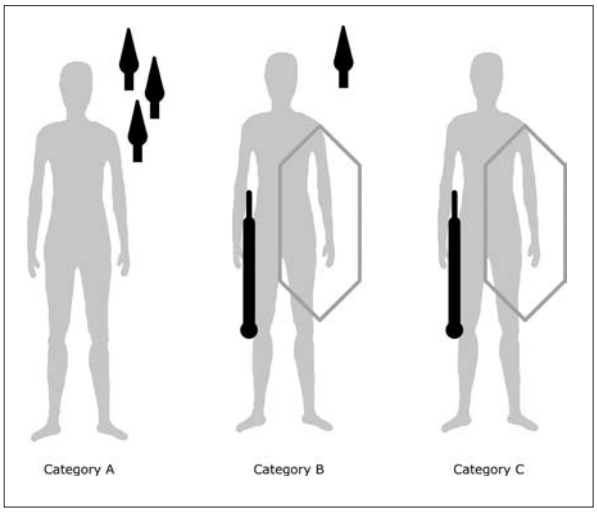

Fig. 9. Categories A, B and C of armed people (PCR).

Inzersdorf-Walpersdorf (13 burials+34 burials)[21]

Grave	Lance/ spear	Sword	Shield frag- ments	Other observations	Date
268	1			inhumation	LT A?
270	1			inhumation *Koppelringe*[22]	LT A
277	1			inhumation	LT A
279	2			inhumation	LT A?
284	3			inhumation	LT A
Parz. 156/2	1	1	boss	? destroyed	LT C

[21] Neugebauer 1996. – See also Neugebauer 1993. – Neugebauer 1997. – Neugebauer 1999.

[22] "The English for *Koppelringe* is *Koppelringe*" (cit. Vincent Megaw). "Koppelringe" are bronze or iron rings affixed to the leather belts. They are the connection to the iron scabbards.

The graves 268 and 270 from Inzersdorf-Walpersdorf include one spearhead each (the object in grave 270 may also be a lancehead), graves 279 and 284 two or three spearheads. Grave 277 definitively contained a lance with a long butt.[23] Grave 270 might have contained the burial of a sword bearer, since *Koppelringe* were fixed to his belt (Fig. 10).

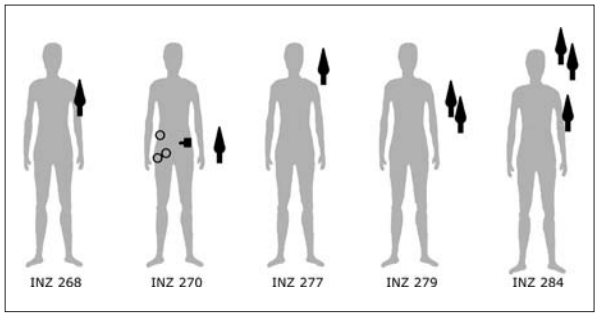

Fig. 10. Armed people at Inzersdorf-Walpersdorf (PCR).

Oberndorf in der Ebene 1982/2004 (43 burials)[24]

Grave	Lance/ spear	Sword	Shield frag- ments	Other observations	Date
1982/3	3			cremation *Koppelringe*	LT A
1982/4	1–2	1		inhumation partly de- stroyed	LT A
1982/9	1	1		inhumation	LT A
1982/13	2			inhumation	LT A
1982/28x	1			inhumations (4 persons)	LT A
1982/31	1	?!		inhumation *Koppelringe*	LT A
1982/102		?		inhumations female + male *Koppelringe*	LT A
2004/21		1		inhumation	LT A
2004/27	2			inhumation	LT A
2004/37	2			inhumation female antler artefacts	LT A

Ten weapon graves were discovered in the cemetery of Oberndorf in der Ebene. Five graves belong to category A with one to three spears, three graves in the category B (lance/spear and sword) and two graves (1982/102 and 2004/21) to category C. The sword in grave 1982/102 is reconstructed solely from the *Koppelringe* (Fig. 11).

[23] Schönfelder 2007, 321.

[24] Ramsl in prep.

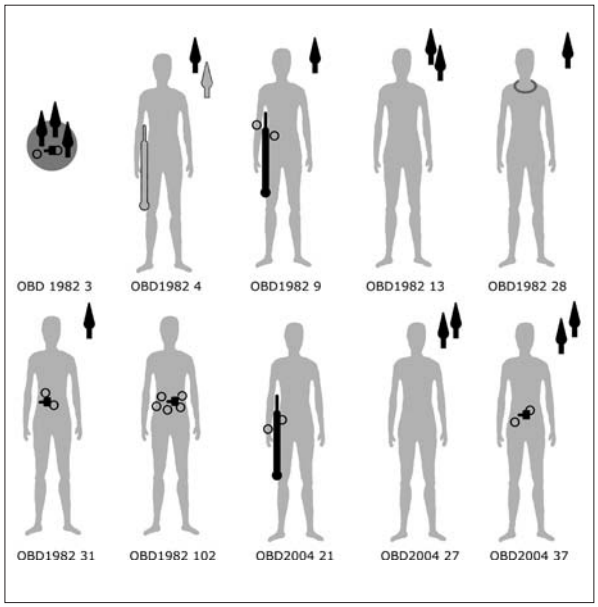

Fig. 11. Armed people at Oberndorf-Ebene (PCR).

Herzogenburg, Flur Kalkofen (11 burials)[25]

Grave	Lance/ spear	Sword	Shield fragments	Other observations	Date
2	1			inhumation	LT A
3	1	1		inhumation	LT A2
9		1		inhumation destroyed	LT A
11		1		inhumation destroyed	LT A?
Obj. 1	1			cremation *Koppelringe* arrowhead helmet?	LT A

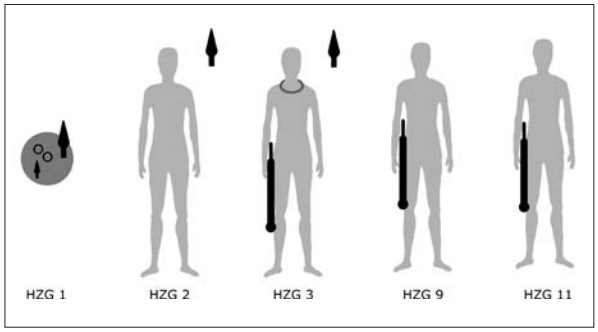

Fig. 12. Armed people at Herzogenburg-Kalkofen (PCR).

[25] Eibner 1981. – Neugebauer 1981.

Leopoldau (13 burials)[26]

Grave	Lance/ spear	Sword	Shield fragments	Other observations	Date
1	3			inhumation	LT A
2	3			inhumation	LT A
3	3			cremation	LT A
5		?		inhumation	?
6	2			inhumation	?
8	1		rim fittings	inhumation	LT A
11	2			?	

Kuffern (15 burials)[27]

Grave	Lance/ spear	Sword	Shield fragments	Other observations	Date
1	3	1		Inhumation arrowheads situla	LT A
2	1	1		inhumation	LT A?
3	1			inhumation	LT A
10	1			inhumation	LT A
11	1			inhumation	LT A?

It is remarkable that a number of graves (e.g. INZ 1982/31) contain *Koppelringe*, but no sword. This can be interpreted in several ways:

1) Depositing a sword as a grave good was never intended.
2) The sword was not included for a specific reason, e.g. the sword was bequeathed or because the *Koppelringe* sufficed to symbolise the sword (*pars pro toto*).
3) The sword was first deposited, but then retrieved during/after the funeral (perhaps evidenced by disturbed burials, e.g. OBD 1982/31).

In particular, the assemblage of two to three spears (Category A) represents an interesting aspect. It might represent a lightly armed unit of warriors that only intervened in certain phases of the battle. Alternatively, they may represent the charioteers, fighting with their lighter spears from their vehicles. Further evidence for this hypothesis is, however, almost absent; only the stray find of a linchpin from Unterradlberg[28] points in this direction. The possible helmet from Herzogenburg, Obj. 1., also represents a unique find.[29]

Some aspects of the cemeteries dating to La Tène B1–2 will be analysed next.

[26] Nebehay 1993, 28–37 and Pl. 18–24.

[27] Nebehay 1993, 8–26 and Pl. 7–16.

[28] Neugebauer 1992, 103 and Fig. 38/5.

[29] See also Franzhausen, grave 768 (Neugebauer 1996, Fig. 10/22).

Mannersdorf am Leithagebirge, Flur Reinthal Süd (100 burials)[30]

Grave	lance/ spear	Sword	Shield fragments	Other observations	Date
37	1	1	rim	inhumation	LT B1
60	1	1		inhumations 2 persons	LT B1c
67	1	1		inhumation	LT B1
76	1	1		inhumation omega pin	LT B
109	1	1		inhumation	LT B1c
117	1	1	rim	inhumation female comparable sword in Plessis--Gassot handmade pot	LT B2c
127		1		inhumation	LT B1c/ B2a
143	stan- dard	1		inhumation horse fibula	LT B2a
180	stan- dard	1	boss, rim	inhumation	LT B2a
181	1	1	rim	inhumation	LT B2b
225	1	1	boss	inhumation	LT B2b
229	1			inhumation	LT B2/ C1
230		1	boss, rim	inhumation	LT B2c

The Mannersdorf cemetery can be summarised as follows: of the 13 weapon graves, only grave 229 belongs to category A. Category B (sword and spear) is represented in 10 graves. Graves 143 and 180 contained standards, which are highly symbolic and not purely practical weapons. Five of the graves also contained remnants of shields (bosses, rim fittings). Graves 127 and 230 included only a sword as a weapon (Category C), the latter also contained a shield boss. In summary, the combination of sword and lance is most prevalent (Fig. 13).

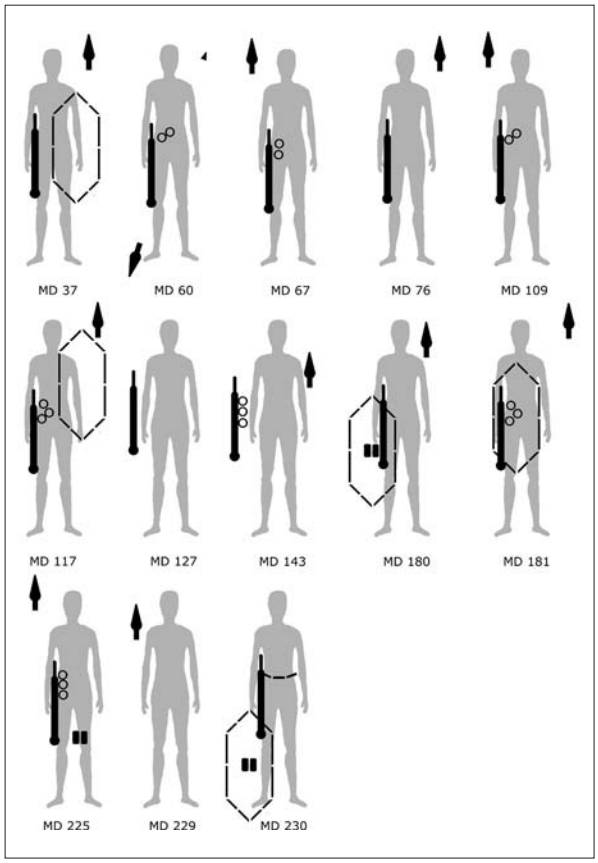

Fig. 13. Armed people at Mannersdorf/Lgb., Flur Reinthal Süd (PCR).

Pottenbrunn (45 burials)[31]

Grave	Lance/ spear	Sword	Shield fragments	Other observations	Date
1930/2		1		inhumation	LT B2b
4	1	1		sword left-hand- -side female fibula set	LT A2
23		1		pit without cremation	LT B1/2
160	1		rim?	Inhumation *Koppelringe*?	LT B1/2
400	1	1	rim	inhumation + cremation	LT B2
520	stan- dard	1	rim	inhumations arrows	LT B2
562	1	1		inhumation	LT B2b
854		1		cremation	LT B1b
855	1	1		cremation gold finger ring	LT B1b
975	1	1		cremation	LT B1b
1002		rivet?		cremation?	LT B
1005	1	1		cremation ceramic stamp	LT B1b/ B2a

[30] Ramsl 2012.

[31] Ramsl 2002.

The cemetery of Pottenbrunn is similar to Mannersdorf regarding the weapon graves. Only one grave (160) belongs to category A (only spears/lances), but it is heavily disturbed and may have contained rim fittings of a shield and a Koppelring. Seven graves (4, 400, 520, 562, 855, 975 and 1005) belong to category B. Special finds are the standard in grave 520 and the rim fittings in graves 400 and 520. Category C (sword only) is represented by graves 1930/2, 23, 854 and possibly 1002, in which only the rivet of the hilt of a sword was found. In summary, the combination of sword and lance is most prevalent (Fig. 14).

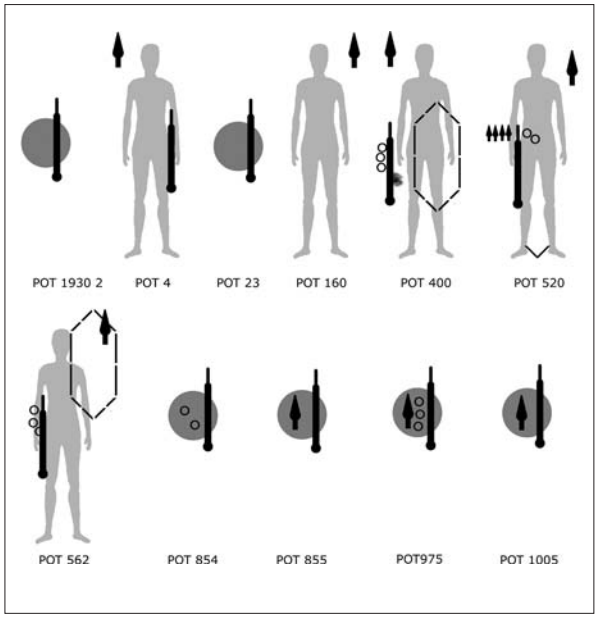

Fig. 14. Armed people at Pottenbrunn (PCR).

Au/Mühlbachäcker (25 burials)[32]

Grave	Lance/ spear	Sword	Shield fragments	Other observations	Date
2	1	1		inhumation	LT B?
5		1		inhumation?	?
6	?	1		3 persons	LT B
7		1		3–4 persons	LT B?
9	1	1	rim fittings		LT B
11	1	1		inhumation	LT B2
12		1		inhumation	LT B2
15		1		inhumation	LT B
16	1	1		inhumation	LT B2

[32] Nebehay 1971. – Nebehay 1973a.

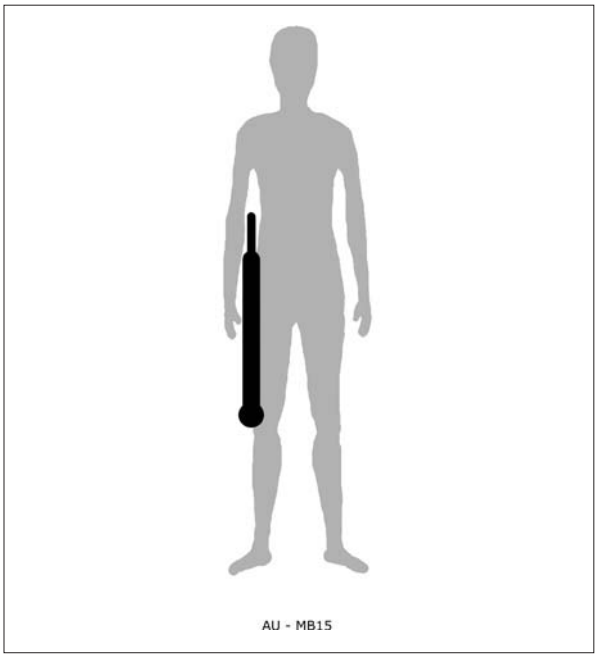

Fig. 15. Grave 15 from Au/Lbg., Flur Mühlbachäcker (PCR).

Au/Kleine Hutweide (29 burials)[33]

Grave	Lance/ spear	Sword	Shield fragments	Other observations	Date
2			?	cremation	LT B1
3	1			inhumation	LT B
6	1	1		cremation	LT B
11		1		inhumation	LT B2?
13	4	3		cremation smith? cenotaph?	LT B2?
16		1		cremation	LT B1
18	1	1		inhumation	LT B2
19			?	cremation arrowheads	LT B
20				inhumation shield?	LT B
28	1	1			LT B

The cemeteries of Au am Leithaberge (Flur Mühlbachäcker, Kleine Hutweide) were excavated a long time ago. Only six graves belong to category A (spears/lances only). Eight graves can be classified as category B with sword and lance; only one grave (Mühlbachäcker no. 9) contained rim fittings of a shield. Six graves contained only a sword (category C). Grave 13 from Au-Kleine Hutweide represents an exceptional case of a single cremation with four lanceheads and three swords. As pointed out above, this case might represent a *pars pro toto* deposition (Fig. 15, 16).

[33] Nebehay 1973b.

Fig. 16. Plan of the cemetery Au/Lbg., Flur Kleine Hutweide (S. Nebehay, P. Ramsl).

In summary, the graves with sword and lance (25) predominate in the phase La Tène B. According to metal rim fittings, at least seven of the graves also contained a shield. They are followed by graves with only a sword (12) and only one spear or lance (3). Graves of category A are thus little represented in the phase following La Tène A; this could be due to a change of combat style during this period between 400–250 BC.

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DAMAGED GOODS. AN ANALYSIS OF THE INTENTIONAL INVENTORY DESTRUCTION IN CELTIC CREMATION GRAVES FROM THE MIDDLE DANUBE REGION

ZUZANA ZETOCHOVÁ

Abstract: The identification and interpretation of rituals connected to burial rites or death is one of the most intriguing research topics in archaeology. It is certain that the final outcome of the burial was strongly influenced by the superstitious beliefs, religion and cosmology – elements we do not know much about, not only in the Celtic period. With the first appearance of cremation in Celtic cemeteries in the Middle Danube region, the relationship of the body and grave inventory changed significantly. Moreover, the rituals used before, during and after the burial were also influenced. This could be proven by the emergence of the intentional inventory destruction phenomenon. It is, however, very complicated to establish any theories about past practices like burial rites. Specific handling and detailed analysis of cremations can help to reveal hidden information about rituals and other processes connected with the burial. This effort must include various interdisciplinary approaches.

Keywords: Celts, cremation, inventory destruction, Middle Danube

One of the issues related to Celtic studies is the transition to cremation rites and the bi-rituality phenomenon. Cremation must not be seen as the total destruction of the body; it is a transformation into a different substance. With the first appearance of cremation, the relationship between the body and the grave goods changed significantly. Jewellery and clothing accessories could not be placed in their functional position as in inhumation graves.

Cremation has several stages, which consisted of the preparation of the body, building the funeral pyre, collection of the burned bones and burying them with the inventory in the prepared grave pit.[1] These stages could be recognized and partially reconstructed by analysing the cremation graves in detail. Important are attributes of the grave pit, the manner of deposition of the cremated human remains and, of course, the grave inventory.

With the transition to the cremation rite, the phenomenon of intentional destruction of the inventory emerged. This custom brought not only new ways of treating grave goods but probably also new rituals as a form of social communication. According to C. Geertz rituals identify the individual with his/her group, but also serve as a medium of separation from the others.[2]

The original database for the intentional inventory destruction analysis contained 428 cremation graves from 33 sites from the Middle Danube region. The results of the analysis for the territory of Lower Austria may be distorted by the small number of cremation graves (only 14). The main analysed areas include southwestern Slovakia, Moravia and Transdanubia. However, the information about inventory deformation in graves from the Lower Austrian territory is included in the text. Disturbed graves or graves with an insufficient level of written documentation were not included in the database.

By analysing the inventory destruction, it is possible to distinguish four main groups of artefacts: jewellery and clothing accessories; weapons and armour; tools and pottery. Metal artefacts were ritually destroyed in several ways:

– Deformation by fire (partial or full); the stage of deformation affects the possibility of identifying the artefact;
– Bending, deformation of the original shape of the artefact (no problem with the identification of original shape and function);
– Fragmentation, intentional breaking of the artefact; the stage of fragmentation affects the analysis of the artefact type and its original dimensions.

Two methods of destroying pottery were identified – secondary burning and intentional fragmentation.

DESTRUCTION OF JEWELLERY AND CLOTHING ACCESSORIES

Fire-deformed jewellery or accessories from clothing were documented in 95 of all analysed Celtic cremation graves from the Middle Danube region (41 graves from Slovakia, 19 graves from Moravia and 35 graves from Transdanubia). Objects were most probably burned on the funeral pyre together with the dead body, placed in their functional position as part of the costume, like in inhumation graves. In this category the most common artefacts destroyed by fire were bronze anklets, glass bracelets and chain belts (Fig. 1). In graves from southwestern Slovakia and

[1] ARTELIUS 2000, 20.

[2] GEERTZ 2000, 192.

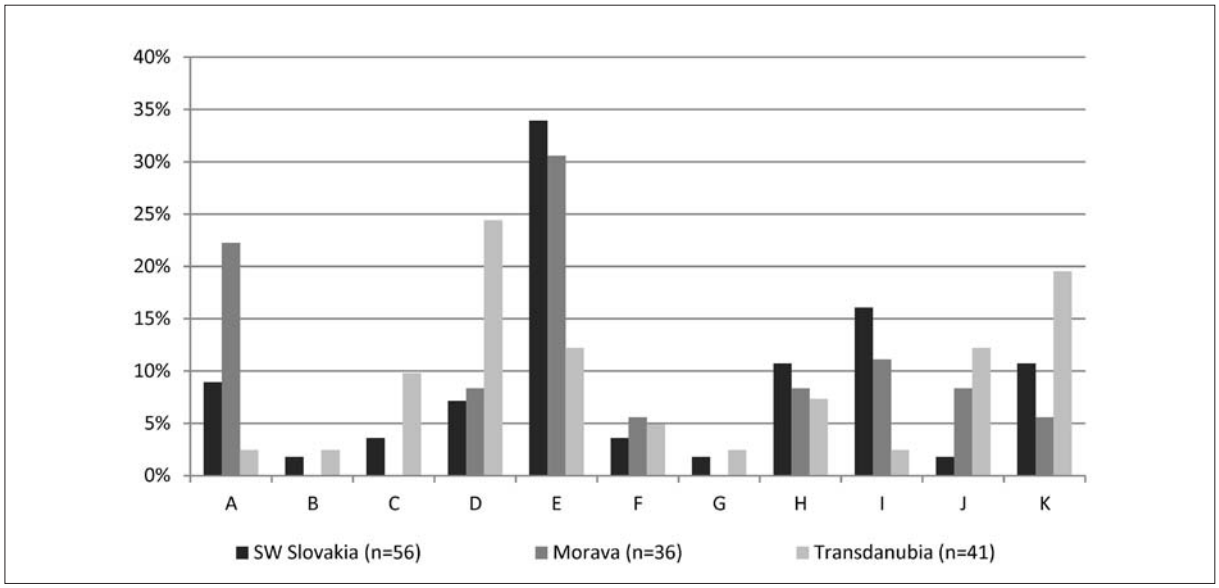

Fig. 1. Fire-deformed artefacts in analysed Celtic cremation graves from the Middle Danube region. Number in brackets: number of fire-deformed artefacts in graves. – A: Iron fibula. – B: Iron bracelet. – C: Bronze fibula. – D: Bronze bracelet. – E: Bronze anklet. – F: Neck chain. – G: Bronze ring. – H: Chain belt. – I: Glass bracelet. – J: Other. – K: Melted bronze (unidentified) (graphics: Z. Zetochová).

Moravia bronze anklets dominate among the fire-deformed jewellery and clothing accessories

Strong fragmentation of the bronze anklets was probably also caused by the very fine bronze sheet they were made of.

For graves from Transdanubia bronze bracelets are the most common fire-deformed artefact. It is also interesting that in cremation graves of the Vekerzug Culture from Transdanubia bronze bracelets were the most common of the fire-deformed and fragmented artefacts.

Fragmentation of the jewellery and clothing accessories was not very common and very difficult to identify, especially in the case of iron objects. Identification of the original type of artefacts (bronze, iron or glass) is in most cases not possible because of the level of fire deformation.

Deformed jewellery or clothing accessories were not very typical in the graves of warriors. Only four examples were identified among the analysed graves from the Middle Danube region – grave 27 from Dubník (bronze ring), grave 32 from Maňa (glass bracelet), grave 545 from Holiare (bronze anklet) and grave 879 from Ludas (iron bracelet).

Grave 545 from the Holiare cemetery presents a remarkable feature. The grave contained a pair of fire-deformed bronze anklets and a spearhead, also showing traces of fire.[3] However we have to be cautious about the presence of the spearhead because only a socket was preserved. Various explanations for this kind of grave deposition are possible. Supposedly it was a double cremation grave of a warrior and a related woman. It could also have been the grave of a warrior, whilst the anklets could be a gift from a mourning wife. The reverse is also possible.

Fire-deformed objects were mostly (96 % of analysed graves) deposited in the concentration of the cremated human remains. Spatial analysis of the cremation graves from the Morava region is problematic because the documentation of the original excavation does not contain this information in the case of the Ponětovice cemetery.

Only in two graves were fire-deformed artefacts deposited in the vessel. A bronze anklet was found inside the flask in grave 292 from the Trnovec nad Váhom cemetery. The manner of deposition for cremated human remains is unknown.[4] In grave 669B from the Ludas cemetery fire-deformed anklets were deposited in two locations, one in the concentration of cremated human remains and the other in the bowl.[5]

DESTRUCTION OF WEAPONS

The custom of intentional inventory destruction is very common in Celtic cremation graves of warriors. Several researchers already paid attention to the phenomenon of weapon destruction in Celtic graves, sanctuaries and votive depositions.[6]

In the database, 75 analysed graves belonged to Celtic warriors, with destroyed weapons identified in almost 47 % of these. The number of analysed cremation graves of warriors from Morava and Lower

[3] Benadik, Vlček, Ambros 1957, 93.

[4] Benadik, Vlček, Ambros 1957, 26.

[5] Szabo, Tanko 2012, 24–25.

[6] Pleiner 1993, 161. – Buchwald 2005, 121. – Măndescu 2012.

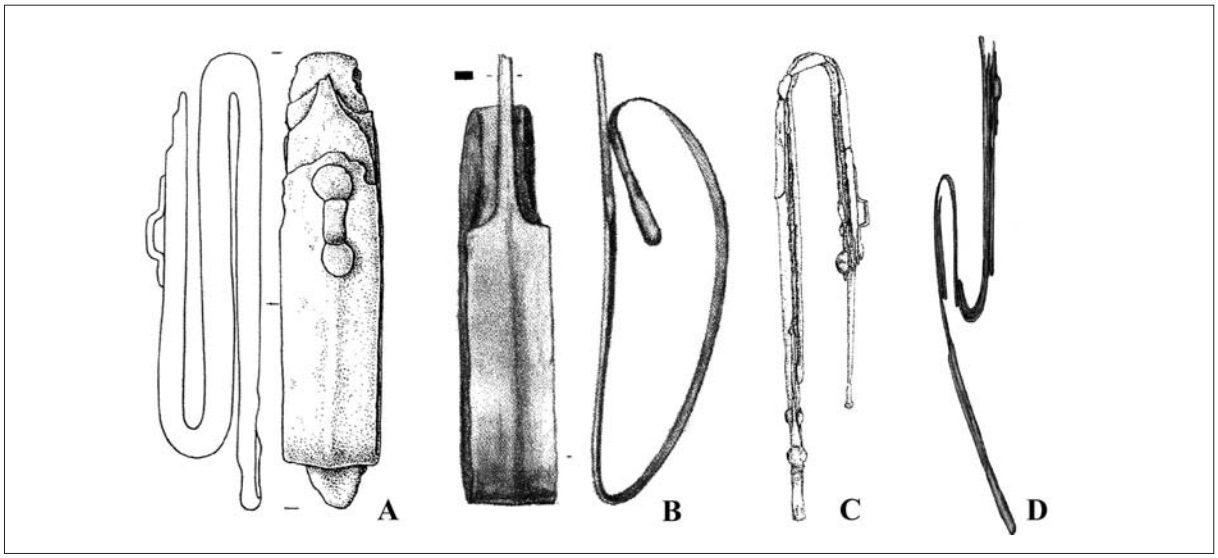

Fig. 2. Various types of weapon deformation. – A: Dubník, grave 27 (after Bujna 1989, Pl. XXVIIB/6). – B: Ludas, grave 703 (after Szabó, Tankó 2012, Pl. XXI/1). – C: Pottenbrunn, grave 1005 (after Ramsl 2002, Pl. 80/7a). – D: Ludas, grave 879 (after Szabó, Tankó 2012, Pl. XXI/1).

Austria is, however, very small (only 9 graves). Almost all of them contained destroyed weapons. The ratio of graves with damaged weapons from Slovakia and Transdanubia is almost equal (43.3 % from Slovakia and 39 % from Transdanubia).

A high variability can be observed in weapon destruction (Fig. 2). On several swords, scabbards, spearheads and shield buckles there are visible traces of fire without any type of bending (e.g. Maňa – grave 32; Rezi – graves 23 and 41; Ludas – graves 1055 and 1057).

The most common type of sword deformation was bending of the blade, which was done in several ways. Swords were folded into an S-shape two to four times (Dubník – grave 27; Malé Kosihy – graves 62 and 477; Ludas – graves 879 and 1288; Ponětovice – grave 26 and Pottenbrunn – grave 975 and probably also Maňa – grave 122). A less common type of deformation was bending of the blade approximately in the middle (Dubník – grave 15; Ludas – graves 904, 1005 and 1056 and Pottenbrunn – grave 1005). In a few cases the sword blade was folded in one direction/rolled-in (Holiare – graves 29 and 544, Ludas – graves 703 and 1140 and Magyarszerdahely – grave 30). Relatively rare was a gentle undulating of the sword blade, which was identified in analysed grave 9 from the cemetery in Brno-Chrlice. A similar type of deformation comes from grave 9 in Kobylnice. In the rest of the analysed graves, other or combined types of bending were identified (Ponětovice – grave 14 and Vác – grave 40).

In all graves the scabbard was present. The sword and the scabbard were mostly bent together with the sword kept inside the scabbard. There is an important exception in grave 30 from Magyarszerdahely, where the sword and scabbard were bent separately. The sword was folded three times in one direction, but the scabbard was folded very tightly twice into an S-shape. Moreover, the sword was pulled through an anklet. The damaged weapons were deposited separately from the concentration of the cremated human remains.[7] A similar find of a separately bent sword and scabbard comes from Ribjek near Mokronog.[8]

Grave 544 from Holiare presents a distinctive feature, with two bent swords included in the inventory. One sword was rolled-in four times, the other one folded three times into an S-shape. The cremated human remains were scattered on the metal grave goods.[9] In the case of this grave we could consider the possibility of the double cremation grave. This phenomenon was the subject of study by several researchers.[10]

Also remarkable is grave 170 from Bucsu where only a bent scabbard without the sword was present.[11] A similar situation was uncovered in two graves in Rezi – graves 23 and 41 contained only fragments of fire-damaged scabbards with no swords.[12]

Weapon fragmentation was identified in graves 6, 31, 75 and 453 from Malé Kosihy. In grave 31 the whole grave inventory including the sword with scabbard, shield parts and maybe also a spearhead was fragmented. In this case the ritual fragmentation of the grave inventory was connected to the secondary burial ritual. The grave was opened, probably shortly after the burial, which is suggested by the shaft identified during the excavation.[13] In graves 6, 31 and 75 metal fragments, burnt human and animal remains were evenly distributed over the whole surface of the grave pit.

[7] Horváth 1987, Fig. 30, Pl. XIII/1a, 2a.

[8] Laharnar 2013.

[9] Benadik, Vlček, Ambros 1957, 93 and Pl. XXXVI/6, 7.

[10] E.g. for recent reviews see Egg 1999. – Czarnecka 2007.

[11] Ilon, Nagy 2010, 79 and Fig. 15.

[12] Horváth 1987, 107, 114.

[13] Bujna 1995, 25 and Pls. 6/1a–c; 7/1, 2a–b, 3, 5.

	Preserved vessels			Destructed vessels		
	Average height (mm)	Width of mouth (mm)	Width of bottom (mm)	Average height (mm)	Width of mouth (mm)	Width of bottom (mm)
Flasks	272	154	116	283	165	119
Bowls	94	235	–	93	226	–

Tab. 1. The average dimensions of the preserved and undestroyed vessels from analysed Celtic cremation graves from the cemetery in Malé Kosihy (graphics: Z. Zetochová).

A different situation was documented in grave 453, where the fragments of weapons were deposited in the northeast part of the grave pit. The cremated human remains were on the pile close to the western wall of the grave.[14]

In most cases spearheads were simply bent in the middle of the leaf part. A distinct find is presented by the specimen from grave 15 in Dubník (bent twice and rolled in) and from grave 16 in Ponětovice (one side of the leaf was bent in).

POTTERY DESTRUCTION – FRAGMENTATION AND SECONDARY BURNING

During the cremation, the mourners took part in funeral banquets, evidence for which is provided by the information from literary sources and archaeological finds.[15] These banquets probably took place close to the burial pyre. It is very likely that intentionally fragmented vessels were used for the purposes of the burial ceremony and subsequent feast. During or after the feast they were smashed and all or just some of the fragments were put into the grave pit.

The custom of intentional pottery destruction was not very common among Celts in the Middle Danube region. It was, however, identified in almost 79 % of analysed graves from the cemetery in Malé Kosihy. Graves with destroyed pottery were evenly distributed among the other graves in the cemetery. Some graves contained a completely destroyed pottery inventory. Several graves, however, contained whole preserved vessels with sherds of the intentionally destroyed pottery. In most graves, fragments of intentionally broken vessels were deposited on the bottom of the grave pit, scattered or placed around the walls. Depending on the manner of deposition of the cremated human remains, the fragments of pottery were either situated in the concentration of burned bones (mostly in scatter cremations) or outside this concentration (deposition of bones on the pile).

A different situation was observed in graves 176 and 283. In grave 176 at a depth of 0.8–0.9 m a few fragments of pottery were scattered together with animal bones. There were no sherds on the bottom of the grave pit, only preserved vessels. A similar situation was uncovered in grave 283. In the top layers were pottery fragments together with cremated animal bones and probably a piece of a fire-deformed bronze anklet.[16]

Grave 468 from Malé Kosihy represents a distinct feature. In the top layer almost a whole deer was buried with a few fragments of a bowl. About 0.5 m deeper, human remains were deposited in a small pile. Outside this concentration were a bronze fire-deformed object, the remains of a pig and fragments of the bowl from the top layer.[17] The situation uncovered in grave 31 in Malé Kosihy also suggests possible pottery destruction as a result of the secondary opening of the grave.

Destroyed vessels were mostly represented by bowls and flasks dominated. These vessel types also dominated in a preserved condition in all analysed cremation graves in the Middle Danube region. There is, however, a small difference in the dimensions between preserved and fragmented vessels (Tab. 1).

Secondary burnt vessels were only observed in a little under 11 % of analysed graves. Most of them come from the Morava territory, where all graves from the Ponětovice cemetery contained secondary burnt pottery fragments from various types of vessels. Fire-deformed vessels were identified only in two graves from the territory of Slovakia. In grave 44 from Bajč-Vlkanovo a deformed flask was deposited. Because the grave contained only a small iron fibula it is not possible to assign it to a certain chronological stage.[18] Sherds of the flask with the stamp decoration deformed by the fire were deposited on several spots outside of the concentration of cremated human remains on the bottom of grave 62 from Malé Kosihy.[19]

Several graves with secondary burnt vessels were identified in the territory of Transdanubia (Balatongyörök – grave 1; Rezi – graves 12 and 32; Magyarszerdahely – graves 8, 21, 24 and 37). In all graves secondary burned vessels were deposited outside the concentration of cremated human remains, mostly on the bottom of the grave pit. An unusual situation was documented in grave 12 from the Rezi cemetery. At the same level, about 50–65 cm above the bottom of the grave pit, two large lumps of the

[14] Bujna 1995, 90 and Fig. 453.

[15] Green 1992, 107–108.

[16] Bujna 1995, Figs. 31a, b; 56a, b.

[17] Bujna 1995, 93 and Fig. 84a, b.

[18] Benadik 1960, 402.

[19] Bujna 1995, 28–29 and Fig. 13b.

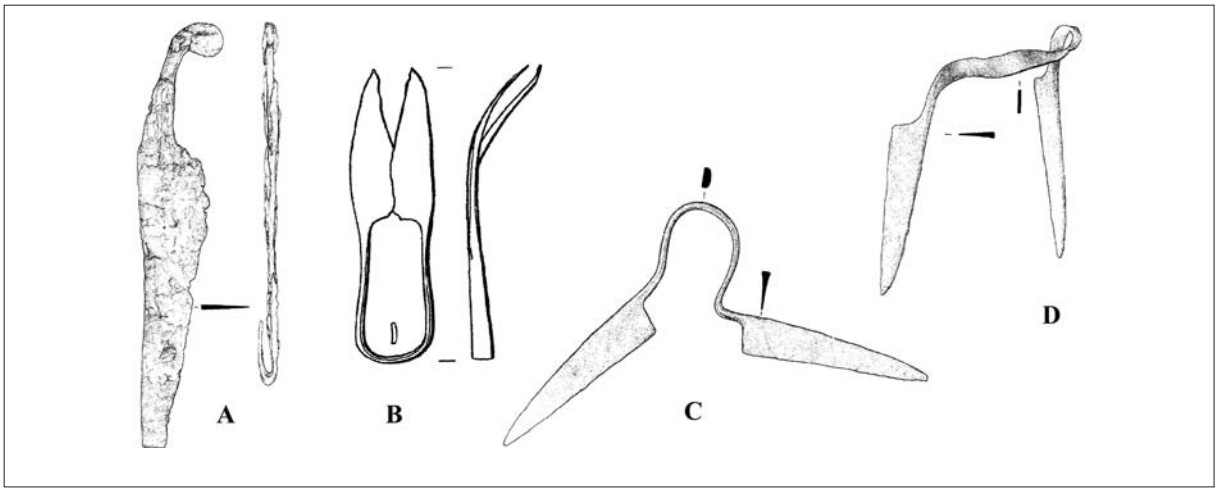

Fig. 3. Deformed tools from Celtic cremation graves from the Middle Danube Region. – A: Pottenbrunn, grave 233 (after Ramsl 2002, Pl. 52/17). – B: Malé Kosihy, grave 274 (after Bujna 1995, Pl. 31/11). – C: Pottenbrunn, grave 854 (after Ramsl 2002, Pl. 72/4a). – D: Pottenbrunn, grave 975 (after Ramsl 2002, Pls. 71/5, 77/6).

sandstone together with fragments of the refired vessels were located.[20]

Also remarkable is grave 1 from the cemetery in Balatongyörök, where remains of a black, tar-like substance (probably pitch) were found on the inner surface of the secondary burned flask. Pitch fragments were also deposited in graves 7, 22 and 32 from the Magyarszerdahely cemetery. It was probably burned together with the dead body and released a pleasant smell during the cremation.[21]

OTHER DEFORMED ARTEFACTS

Apart from metal objects and pottery in analysed Celtic cremation graves from the Middle Danube region, other kinds of fire-deformed or bent artefacts were also identified. Twelve graves with intentionally destroyed tools were identified. Bent iron shears were included in the inventory of graves 274 in Malé Kosihy, grave 3 in Ponětovice and in graves 854 and 975 in Pottenbrunn.

Especially interesting is grave 274 from the Male Kosihy cemetery, where fire-deformed bronze anklets were also found, despite the fact that shears are one of the objects typical for the graves of men. The possibility that this was a double grave (man and woman) must be considered. In this grave, a shaft of a secondary opening of the grave was uncovered.[22]

In two analysed graves deformed iron knives were found – grave 65 in Rezi and grave 202 in Bucsu. A knife with a deformed blade was also included in the inventory of cremation grave 233 from Pottenbrunn cemetery. Various types of tool deformation were identified in the analysed graves (Fig. 3). Besides bending, fragmentation of the tools was also documented in graves 6, 31, 84 and 477 from the Malé Kosihy cemetery.

A distinct feature is represented by cremation grave 8 from the cemetery in Mistřín, where 15 pieces of hazelnuts with traces of fire were documented.[23] The Celts believed hazelnuts gave one wisdom and inspiration and in several tales they were connected to Druids and their students. Hazel leaves and nuts are found in early British burial mounds and shaft-wells, especially at Ashill, Norfolk.[24]

CHRONOLOGY OF THE CUSTOM

The first cremation graves appear in the Middle Danube region in the LT B1 phase. Most of the early cremations belonged to warriors, and already in this phase graves contained deformed weapons. In western regions of the Celtic world cremation appeared already in the Early La Tène period. For example, grave 7 from the Nebringen cemetery contained a deformed sword in a scabbard.[25]

Chronological analysis of the weapon deformation custom is biased by the small number of graves from the LT B1 and LT B1/B2 phases. All graves from the Morava region with deformed swords and spearheads date to the LT C1b–c phase. Analysis was therefore performed only for the graves from Slovakia and the Transdanubia region. Different regions show different tendencies regarding the custom of the intentional inventory. More than 50 % of graves from the LT B2 phase contained deformed weapons. A decrease of the custom in graves from Slovakia can be observed from LT B2/C1. Conversely, in Transdanubia, after a small decrease of the custom from the

[20] Horváth 1987, 98–99 and Fig. 37.

[21] Peškař, Ludikovský 1978, 72–75. – Horváth 1987, 68–69.

[22] Bujna 1995, 63–64 and Fig. 55.

[23] Filip 1953, 335.

[24] MacKillop 1998.

[25] Krämer 1964, 26 and Pl. 10A/1.

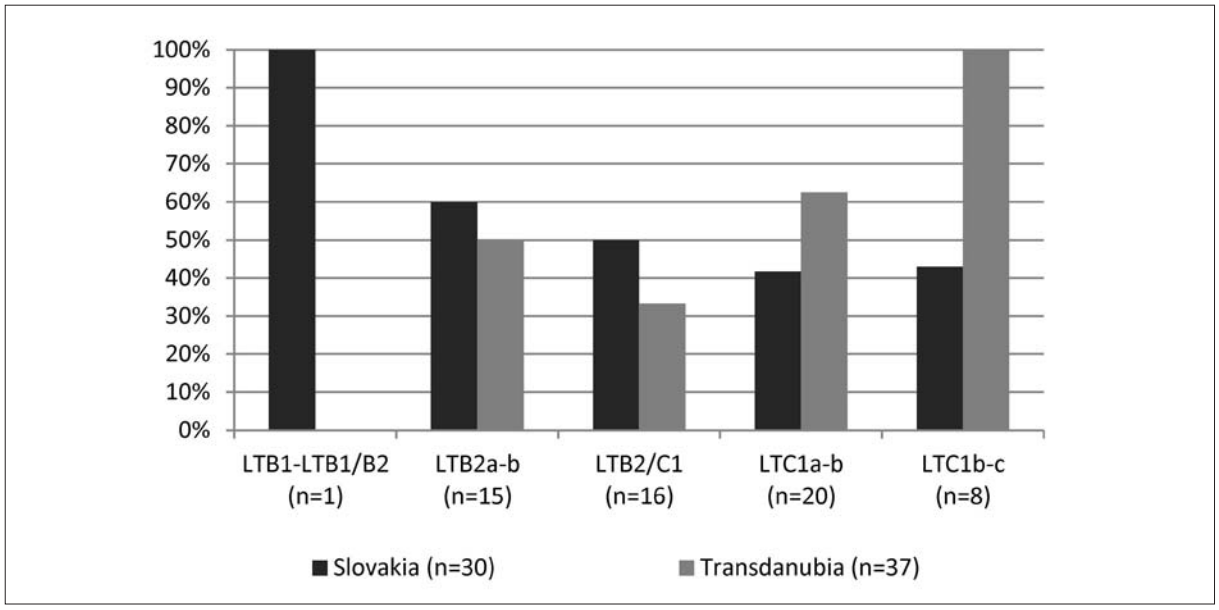

Fig. 4. Chronological analysis of the weapon destruction in cremation graves of warriors from Slovakia and the Transdanubia territory. Number in brackets: number of warriors' graves in the chronological phase (graphics: Z. Zetochová).

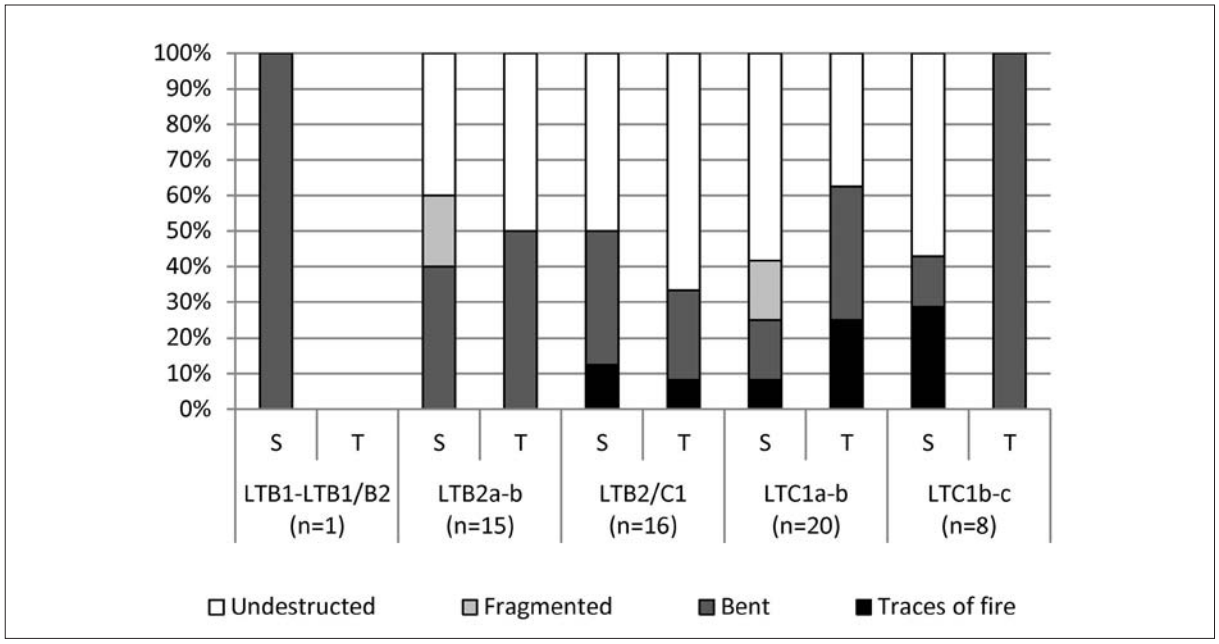

Fig. 5. Weapon destruction in the analysed Celtic cremation graves from Slovakia (S) and Transdanubia (T). Number in brackets: number of warriors' graves in the chronological phase (graphics: Z. Zetochová).

LT B2/C1 phase, the custom of weapon destruction in cremation graves increased again (Fig. 4). The observable changes could have been caused by the arrival of the new wave of migrants in LT B2/C1, when new cemeteries were founded and new types of women's jewellery appeared.[26]

It is not possible to observe any tendencies in weapon deformation; modest and severe bending is represented in all phases. However, simple traces of fire without any deformation are common from the LT B2/C1 phase for both territories (Fig. 5).

Early cremation graves without weapons but with fire-deformed jewellery or clothing accessories come from the LT B2 phase. The regions of Slovakia and Transdanubia exhibit different tendencies not only in comparison with each other but also in connection to the custom of weapon destruction. While deformation of jewellery and clothing accessories in cremation graves from Slovakia increases slightly (only a small decrease in the LT B2/C1 phase), in Transdanubia this

[26] Bujna 2004, 331.

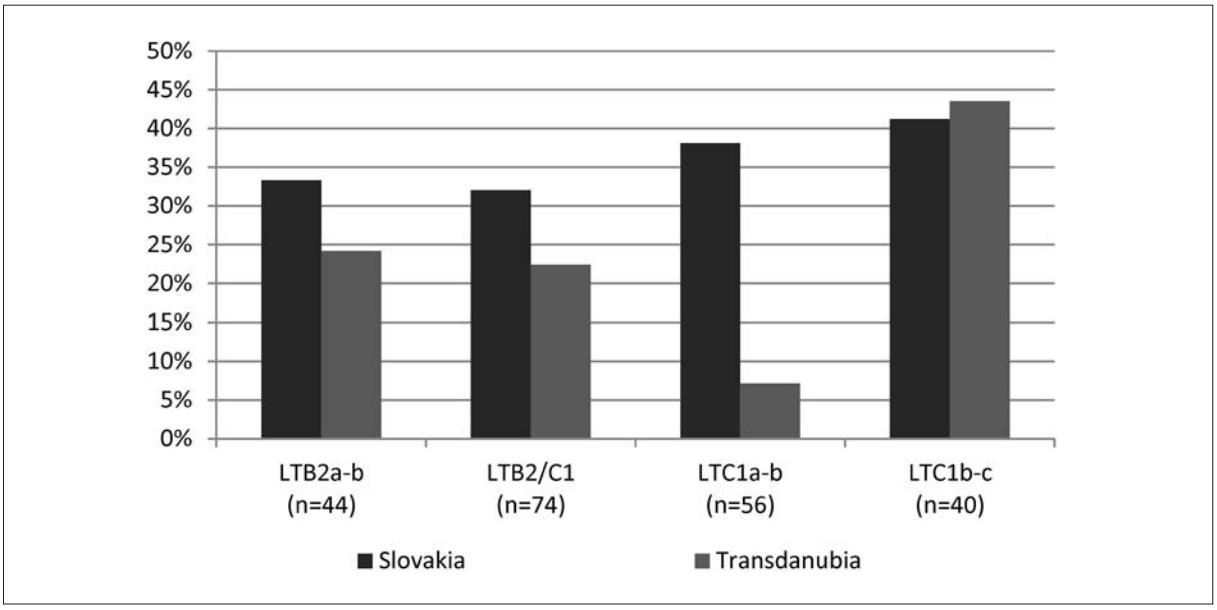

Fig. 6. Jewellery and clothing accessory destruction in Celtic cremation graves from Slovakia and Transdanubia. Number in brackets: all cremation graves from chronological phase (graphics: Z. Zetochová).

custom decreases. Results for the LT C1a–b phase could be distorted by the small number of graves (only 14). Percentages for the final phase are almost equal for both territories (Fig. 6). All types of objects were evenly distributed in all chronological stages.

Only a small number from the LT B2 to LT C1a–b phases are located within the Morava region. Graves from LT C1b–c show different numbers to the other areas – only 18 % of cremation graves contained deformed jewellery and clothing accessories.

The ratio of cremation graves with fire-deformed jewellery and clothing accessories varied among all analysed cemeteries from 13 % (Rezi) to 33 % (Hurbanovo-Bohatá). The only exception is the cemetery in Mistřín, where the author states that 55 % of graves contained fire-deformed objects.

The first graves with intentionally fragmented pottery appeared in the Malé Kosihy cemetery from chronological stage LT B1/B2 (early cremation graves 28 and 62) and this continues until the cessation of burials at the cemetery in chronological stage LT C1c. Apart from early grave 62, most of the warriors' graves with intentionally fragmented pottery come only from the LT C1a–b phase. Grave 31 is controversial because the fragmentation of the pottery was probably caused during the secondary ritual after opening of the grave.

Most of graves from Transdanubia in which secondary burnt or fragmented pottery was found also come from the LT B2/C1 phase. Secondary burning was identified in all graves in the Ponětovice cemetery, which are dated to the LT C1b–c phase. To the same phase belong also two warriors' graves from Brno-Chrlice (grave 9) and Kobylnice (grave 9).

POSSIBLE INTERPRETATION OF BEHAVIOUR AND INFLUENCING FACTORS

The intentional destruction of grave goods can be seen as a ritual connected with the transition into the afterlife. This transformation is connected with the purifying power of the fire. Ritually bent weapons from the Middle Danube region were deposited only in cremation graves. The same results were derived from D. Măndescu's research for the territory of Transylvania.[27] A rare situation was documented in inhumation grave 562 from the Pottenbrunn cemetery, which contained a slightly deformed spearhead.[28] In this case it is, however, very difficult to distinguish intentional deformation from accidental bending.

However, in the territory south of Bologna, for instance, inhumation graves with bent weapons were quite common (e.g. graves 35 and 55 from the Monte Bibele cemetery)[29] and also in the cemetery of Kutná hora-Karlov in Central Bohemia – graves 17 and 37.[30]

Various interpretations of the intentional weapon destruction custom have emerged. Each of them has its own weakness. Some promote the suggestion that long weapons like swords were simply too big to be put into the grave pit. This explanation is, however, already obsolete, because the analysis of the cremation graves' dimensions does not show any differences in the length and width of the grave pit. Weapons may have been destroyed in front of those participating

[27] Măndescu 2012, 347.

[28] Ramsl 2002, 82 and Fig. 83.

[29] Vitali 2003, 129, 189.

[30] Valentová, Sankot 2011, 301, 321.

at the burial for practical reasons. This practice plainly prevented the possible robbing of graves.[31] This custom may also represent the ritual behaviour related to the individual character of the artefacts. The elements of ritual belong to the sphere of superstition, as well as the religious motivation.[32] Weapons can be seen as a symbolic extension of the warrior's hand, thus being part of his body, which, together with the body, was consequently 'killed' after his death.[33] This, of course, raises a question: why do we observe this custom only in some warrior graves?

In some cases this custom may possibly be connected with fear of the dead, especially if it is connected with a secondary opening of the grave. These practices include not only the final outcome of the funeral that can be seen in the archaeological context, but also rituals that prevent the return of the dead and secure his/her transition into the afterlife.

Why was the intentionally destroyed inventory documented only in some graves? What could have possibly influenced the use of ritual? These questions strike when analysing the cremation graves with damaged goods. Graves with deformed grave goods were evenly distributed among all graves in analysed cemeteries. So there was no visible effort on the part of the community to exclude these individuals from the rest.

The custom of intentional inventory destruction is not exclusive only for the Celtic period. It appears already in the Late Bronze Age (Urnfield cultures) and the Hallstatt period and continues in the following periods. Fire-deformed objects were documented in cremation graves from the Statzendorf cemetery (Kalenderberg Culture) and cemeteries in Chotín and Tápioszele (Vekerzug Culture).[34] Secondary burnt pottery was more common in Statzendorf; however, the custom of intentional pottery destruction was more typical for cremation graves of the Vekerzug Culture.

The gender of the buried individuals appears to be insignificant in relation to the analysed custom. However, the sex of the buried individual has been determined for only 37% out of 428 analysed graves (anthropology combined with archaeological methods). The custom of inventory destruction was more typical for the graves of adult individuals and it seems to be more socially rather than gender related. DNA and isotope analyses, which can reveal possible relationships among buried individuals or non-local population and which were already performed on graves from Nebringen and Monte Bibele,[35] and also from Radověsice and Kutná Hora cemeteries, could be helpful.[36]

[31] Pinter 2001, 56–58.

[32] Berecki 2006, 64.

[33] Rustoiu 2008, 91.

[34] Párducz 1966. – Rebay 2006. – Kozubová 2013.

[35] Scheeres et al. 2013.

[36] Scheeres et al. 2014.

CONCLUSIONS

The intentional inventory destruction is one of the most interesting phenomena connected to Celtic burial rites. In the Middle Danube region this custom was bound only to cremation graves. However, in western Celtic territories it was also quite common in inhumation graves (deformation of weapons in the graves of warriors). Differences can be identified not only among analysed areas but also among graves within single cemeteries from the Middle Danube Region. The intentional inventory destruction was identified only in some graves on analysed cemeteries, belonging to various chronological phases.

While in southwestern Slovakia and the Morava region the bronze anklets were the most commonly destroyed kind of jewellery, in Transdanubia the bronze bracelets dominated. It is interesting that the custom of destroying bracelets was also identified in many cremation graves of the Vekerzug Culture from the same territory. We can assume that jewellery and clothing accessories deformed by the fire were placed on the burial pyre in their functional position together with the dead body. This could also be a possible explanation for the destruction of weapons and pottery, although other rituals connected with the transition into the otherworld must be considered.

In warriors' graves the destruction of weapons (swords, spearheads) and armour (shield buckles) was the most common manifestation of this custom. Weapon destruction was identified in 47 % of analysed cremation graves of Celtic warriors. The variability of deformation was very high (Fig. 2). There are no distinct differences among the studied areas regarding the manner of destruction. Mostly the swords in scabbards were deformed – bent or fragmented. Fragmentation of weapons was, however, identified only in four graves from Malé Kosihy cemetery.

Besides metal artefacts, pottery was also intentionally destroyed – secondary burning and fragmentation. It could have been connected to the funeral banquets, which probably took place close to the funeral pyre. Pottery destruction was not very common among the analysed Celtic cremation graves. This could, however, also be caused by the inadequate method of excavation or documentation, connected especially with the excavations from the first half of the 20th century. It is worth mentioning that the secondary burned vessels appeared in all graves from the Ponětovice cemetery (Morava). Fragmentation of vessels was identified in 79 % of cremation graves from the Malé Kosihy cemetery.

The first cremation graves with intentionally destroyed grave goods appeared in the Middle Danube region in the LT B1 phase, when only weapon and pottery deformation was identified. Damaged jewellery and clothing accessories emerged in graves from the LT B2 phase. The chronological analysis shows differences between the areas of southwestern Slovakia and Transdanubia. A significant change in the analysed

custom is observable in the LT B2/C1 phase. This phase is associated with the arrival of a new wave of migrants to the Middle Danube region. This is supported by the foundation of new cemeteries and the appearance of new types of women's jewellery.

Despite the low number of anthropologically determined cremation graves, it can be stated that the gender of the buried individuals was not important. The reason for execution of the ritual only by certain members of the burying community could have been a symbolic separation from the others to distinguish their social group. Individuals buried in graves with damaged goods were therefore linked by common social bonds (family/clan), social status or membership to a particular group. The rituals used and the final outcome of the burial were also strongly influenced by cosmology, religion and superstitious beliefs.

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EXCAVATIONS AT A LA TÈNE CEMETERY ON THE NORTHERN POINT OF CSEPEL ISLAND (BUDAPEST). PRELIMINARY REPORT

ATTILA HORVÁTH M.

Abstract: Budapest City Council decided in 2004 to build the Central Wastewater Treatment Plant on the northern point of Csepel Island. After the sondage excavations in 2004, the salvage excavations took place between 2006 and 2008. Despite the repeated disturbance of the layers and the partial 3.5–4 m filling, 900 stratigraphic units were unearthed over the 13 ha area. During the preliminary excavation in 2004, twenty Celtic objects were excavated. The fully excavated factory building area revealed 87 further objects, related to the cemetery. Among the total 107 objects, 87 were graves (46 inhumations, 20 cremated, 21 strongly disturbed and with unidentifiable rites and gender), 5 empty grave pits and 15 further stray finds and other types of features from the area between the graves. The majority of the significant Celtic finds previously found in Budapest could be dated to the late La Tène period, mostly between the 1st century BC and the 1st century AD. The rarely occurring earlier Celtic sites are mostly indicated by stray finds. Based on the findings, we can justifiably assume that they were presumably in use between the La Tène B1 and C1 periods.

Keywords: Budapest, Csepel, La Tène B–C, cemetery, inhumation, cremation, weapons, brooches, coral and amphora shaped beads

The excavations started in June 2004, when the City Council of Budapest decided to build the Central Wastewater Treatment Plant at the northern point of Csepel Island (Fig. 1). Following the sondage excavations,[1] we conducted salvage excavations at the area between 2006 and 2008[2] with the participation of Dr. Anna Endrődi and Borbála Maráz of the Budapest History Museum, Department of Prehistoric and Migration Period.

The almost 13 ha of excavated area revealed a total of 900 archaeological features and stratigraphic units, even though the fill was 3.5–4 m deep in some parts and the lower strata had been disturbed several times

Csepel Island has always been an area rich in finds within the whole territory of Budapest, which was also proven by these excavations.

Based on the previous results of excavations executed by the Budapest History Museum it was almost expected to find various cultures from Prehistory (Baden, Bell-beaker, Nagyrév, Vatya, Urnfield and Scythian cultures)

[1] HORVÁTH 2005, 177–185.

[2] HORVÁTH et al. 2007, 216–232. – HORVÁTH, ENDRŐDI 2008, 200–202.

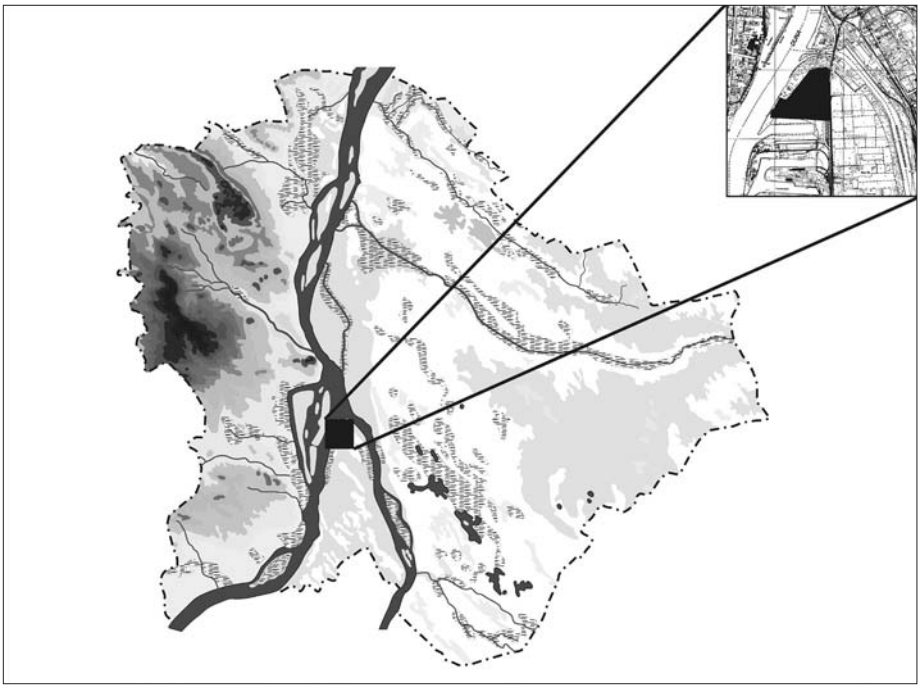

Fig. 1. The map of Budapest, and the location of the site (graphics: Attila M. Horváth).

and the Early Medieval (Avarian and early Arpadian period) ages.[3] However, the La Tène B–C findings, so far found only as stray finds, counted as a novelty.

It was also known that finds from the Late Iron Age La Tène D period could likewise be found. On the southwestern part of the excavation area, traces of a rustic-like settlement came to light, which was also known from the borders of Szigetszentmiklós.[4] In addition to the multiple cesspits, part of a pit house and a large group of pits were unearthed, the latter without doubt used as a workshop. Based on the preliminary examinations however, it seems that the settlement and the cemetery share no connections whatsoever.

The features belonging to the La Tène B–C period first started to appear during the sondage excavation in 2004, in the eastern part of Trench 4 that was opened in the southern third of the site. This excavation season resulted in a total of twenty stratigraphic units related to the Late Iron Age cemetery, the number rising to 107 in 2006 (Fig. 2).

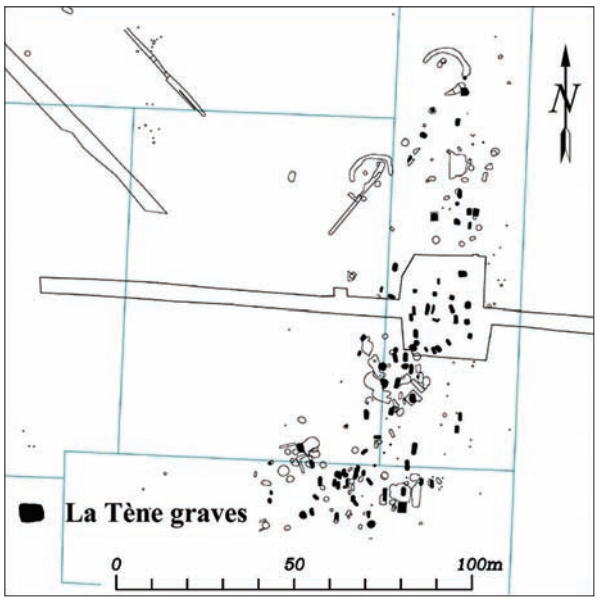

Fig. 2. The map of the cemetery (graphics: Attila M. Horváth).

In the current state of processing of the excavated material it seems that among the features, 87 were graves, (46 inhumations, 20 cremated, 21 strongly disturbed and with unidentifiable rites or gender) 5 are empty grave pits, 7 other stratigraphic units and a further 8 stray finds were found scattered between the graves, presumably as a result of looting (Fig. 3).

Among the excavated and identified inhumation burials, 33 were the graves of females, 9 of males, 4 of children and 13 of a doubtful gender, while in the case of the cremated ones the ratio is 13-6-1-8. In some cases, only some pottery fragments or a vessel remained at the grave, and some were so damaged due to looting or modern age disturbances that even identification of the burial rites is uncertain (Fig. 4).

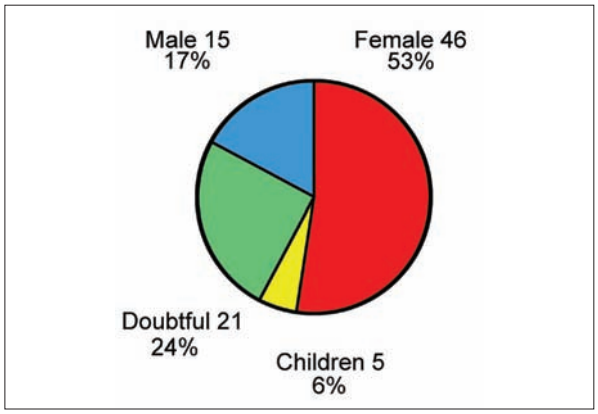

Fig. 3. Ratio of genders and rituals in the cemetery (graphics: Attila M. Horváth).

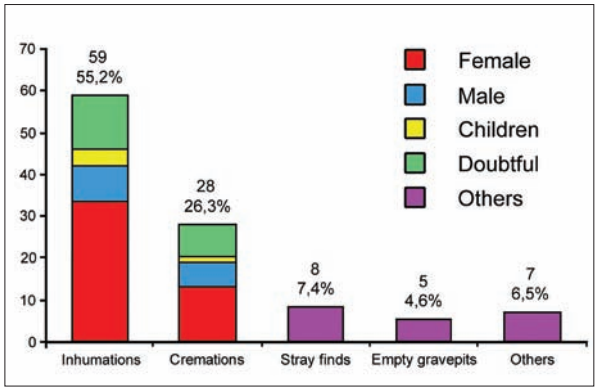

Fig. 4. Ratio of genders and rituals in the cemetery (graphics: Attila M. Horváth).

With regard to the distribution of genders in the whole cemetery, and mostly with inhumations, among the buried the number of women and children is the highest. At 59 percent, in contrast to the 17 percent of male burials, this is apparent, even if for 24 percent of the features we cannot ascertain the gender of the deceased at the moment.

The numbers above could be modified following the complete anthropological examination of the unearthed findings, osteological material and ashes, yet I anticipate significant changes only in the ratio of female and children's graves.

The graves were located on the northern pole of a more or less northeast–southwest-oriented terrace island that had formed on the high flood plain as a result of the Early Holocene cut of the Danube.[5] Based on the characteristics of the terrain and the location of the features, we can say that the site has been fully excavated (Fig. 5).

[3] Horváth et al. 2013: In this article we collated the former sites and publications of A. Endrődi, R. Kalicz-Schreiber and M. Virág.

[4] Hanny 1992, 241–276.

[5] Schweitzer 1992, 9–13.

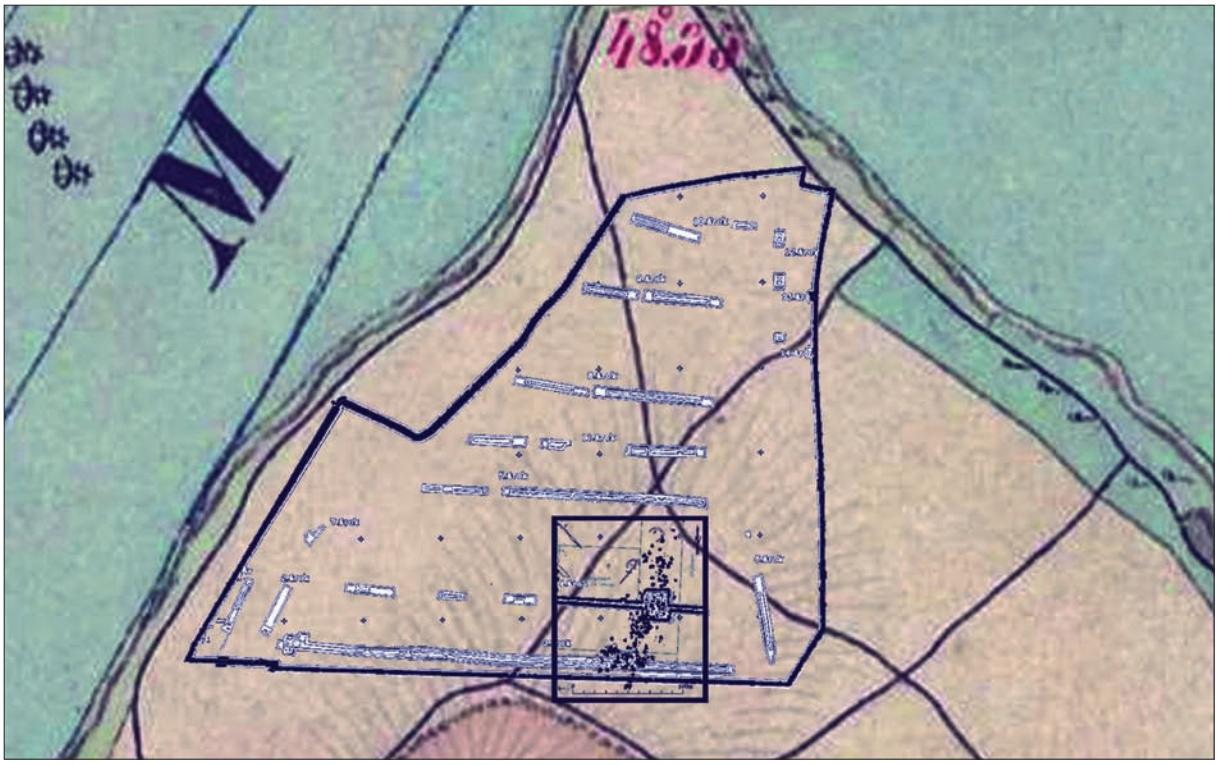

Fig. 5. The location of the La Tène cemetery with the map of the Second Military Survey (1806–1869) from the Collection of the Military Surveys of the Habsburg Empire (based on: mapire.eu).

Although the conservation of the finds from Csepel is still underway, more than 8000 artefacts and fragments were inventorized among the finds from the excavation. Out of this material, already almost 2000 pieces can be dated to the La Tène B–C period group. Based on the types found among the artefacts, we can rightly suppose that the objects found in the cemetery were most probably in use from the end of the La Tène B1 period until the C1 period.

It is, of course, not possible to describe here all the burials or finds from the cemetery. Instead, I would like to draw attention to some of the most important characteristics there, and discuss some of the more significant graves among the varying burial types in more detail. I will also present some of the most interesting finds that were unearthed at the site.

The burials at the cemetery can be divided into two larger groups: inhumations, and cremations.

INHUMATIONS

In the case of the inhumations, the orientation of the grave pits in the cemetery was quite varied. The majority were dug in a north–south direction, but this frequently turned out to be northwest–southeast, or at times even more variable.

The corpses were always buried in a supine position. Among the nine male burials, with one exception, all lay in a north–south direction. However, in the case of the women and children, their burials did not show such regularity. Almost all kinds of orientations could be seen, even with burials lying close to one another.

The majority of the graves had been robbed, or had fallen victim to later agricultural labours. However, the chemicals that entered into the soil with the changes in the levels of groundwater, and the modern fills, affected the state of both the bone material and the finds.

FEMALE BURIALS

Grave no. 121 – We have not found any pottery or bronze goods in the north–south-oriented grave, which was disturbed partly by digging animals, partly by modern age digging on the southern portion. Yet, in addition to the few fragmentary iron items (possibly fibulae), more than 500 different beads, including 404 coral beads were unearthed from the grave, which could be part of a string, wrapped tightly around the neck several times (Fig. 6/1).

Slightly different grave goods came to light from the relatively close grave no. 120, which has a similar axis to the previous one, but with an opposite, north–south orientation, and was also disturbed. Besides the three ceramic vessels, there were fibulae, bronze anklets and bracelets in the grave, but no beads whatsoever. It is also noteworthy that in the empty area between the two graves, another grave, this one empty, was discovered with similar orientation (Fig. 6/2).

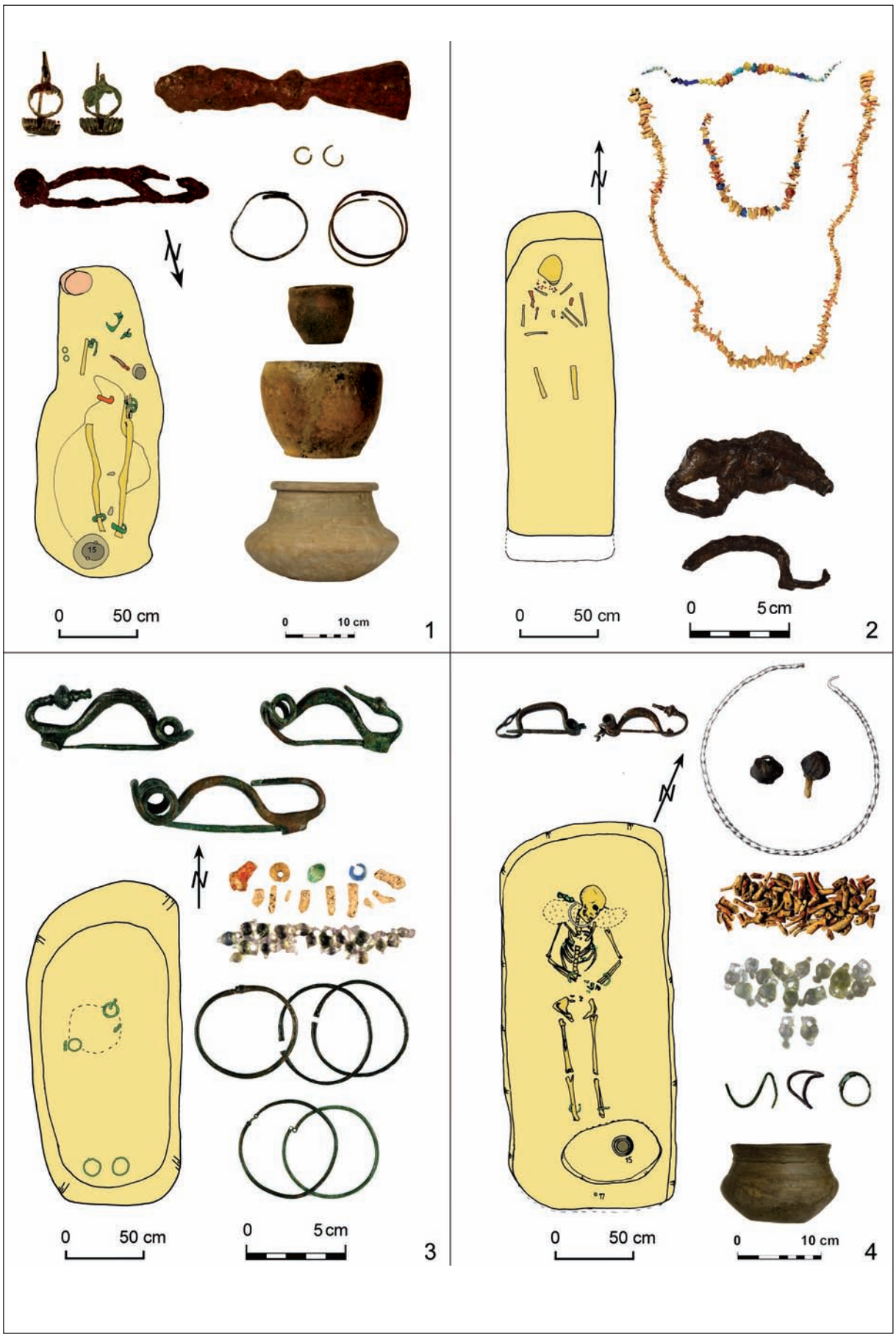

Fig. 6. Selection from female inhumation graves. – 1. Grave no. 120. – 2. Grave no. 121. – 3. Grave no. 444. – 4. Grave No. 538 (different scales) (photos: Csilla Tóth, graphics: Attila M. Horváth).

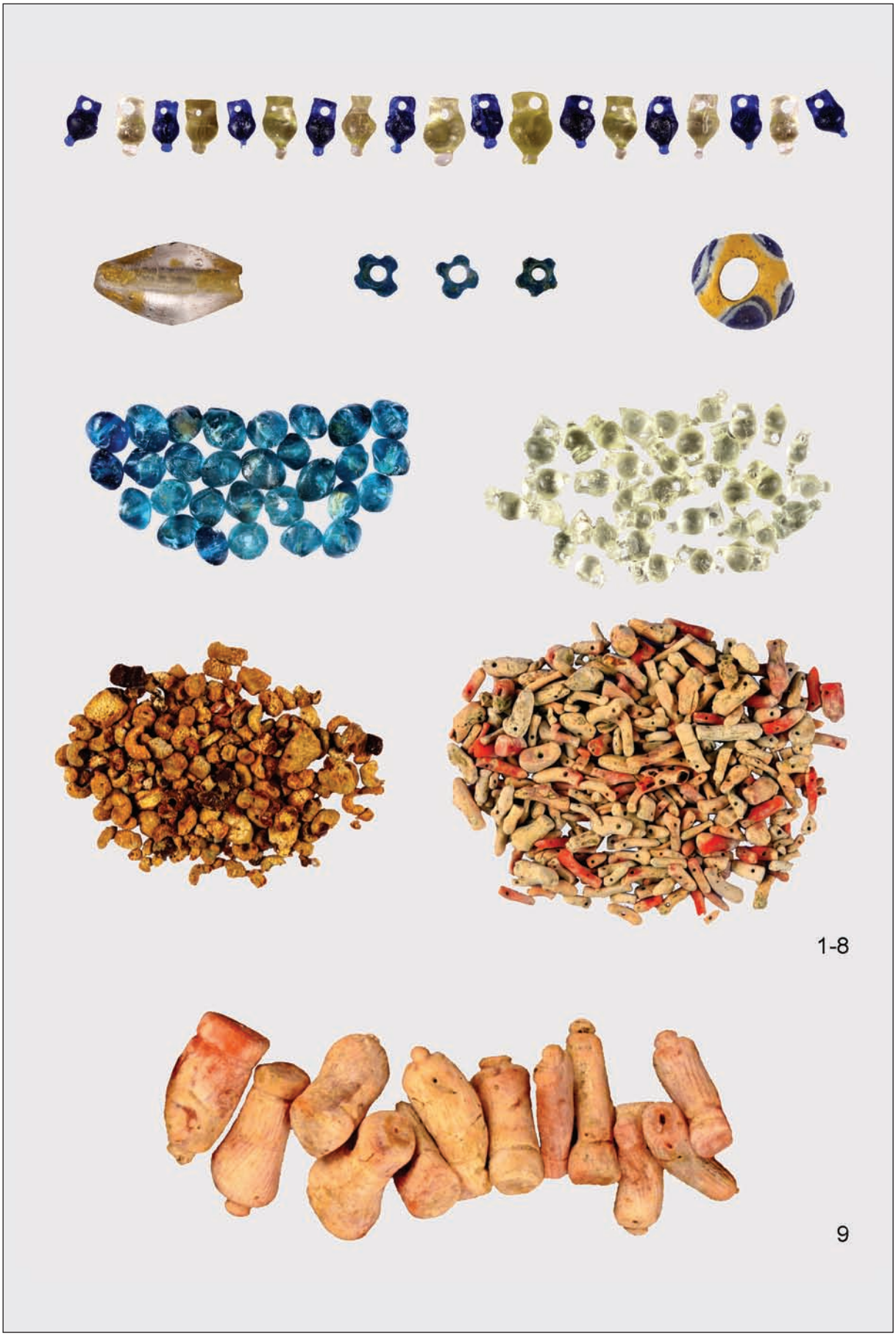

Fig. 7. 1–8. Different types of beads from female inhumation graves. – 9. Processed coral beads from the graves (different scales) (photos: Csilla Tóth).

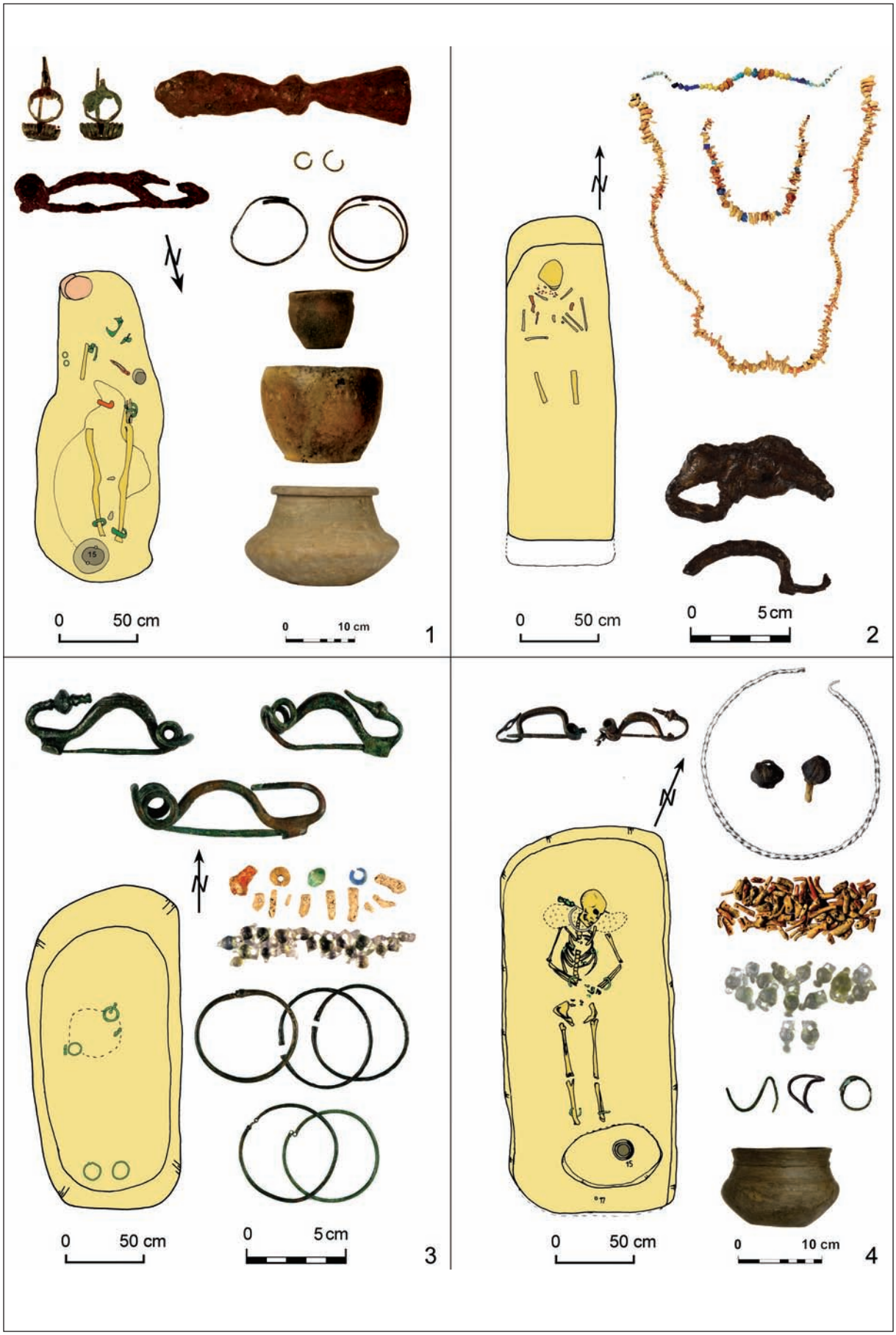

Fig. 8. Selection from male inhumation graves. – 1. Grave no. 164. – 2. Grave no. 282. – 3. Grave no. 397. – 4. Grave no. 439 (different scales) (photos: Csilla Tóth, graphics: Attila M. Horváth).

The female graves, as is usual for that period, contained skeletons wearing jewellery, and were accompanied by various pieces of pottery filled with food and drink offerings. Different beads were frequent finds in these burials (Fig. 7/1–8).

Apart from amber, glass paste, eye-beads, and glass beads of all sorts of shapes and colours, a large number of amphora-shaped beads were also found. They were mostly transparent and blue coloured. We found coral beads in 19 graves, a total of almost two thousand beads. They are mostly one and a half to two centimetres in length, with almost one-millimetre-diameter perforations. All types of coral beads can be found: from the simple broken little branches, through ones with rounded ends, to finely carved pieces. One of the most interesting types is cut straight on one end, accentuated by a thin groove running around the bead between the edge and its hole, and ending in a probably lathe-worked knob on their other end, imitating amphora beads (Fig. 7/9).

However, most of the graves were robbed, and frequently only a few items that have been left behind referred to the burial, as in the case of grave no. 444.

It seems that the beads mentioned before were not a priority for looters, yet the mostly much more elaborate bronze jewellery was also left behind (Fig. 6/3).

Their significance lies not only in their beauty and chronological importance, but also in the fact that in several cases, where the skeletal remains had disintegrated or moved from their position, their mere presence in the burials indicated that we were actually dealing with inhumations.

To find out what exactly the grave robbers were searching for, we are aided by the fragmentary, spiral-shaped silver earring and pendant, and a fragment of a silver pendant excavated in grave no. 391. Yet the find assemblage of grave no. 538, probably only left untouched by chance, is even more telling. Apart from the almost three hundred and fifty pieces of variously shaped blue, yellow, transparent and brownish glass beads, there were coral and transparent amphora beads, as well as two large gadrooned beads. The deceased's dress was held together by Duchov-type fibulae connected by a bronze chain, the skeleton had bracelets on its wrist, rings on its fingers, and her "trousers" legs were held in place at her ankles with an anklet bent of wire. Nevertheless, the most important find from the grave was, without doubt, a silver torc twisted from a square-sectioned solid piece of metal (Fig. 6/4).

MALE BURIALS

The majority of male burials were also found in a robbed state. Even so, we found weapons in 6 out of 9 graves. For example:

In grave 164, next to the supine skeleton, lay a straight sword and two smaller spearheads, accompanied by a whetstone (Fig. 8/1).

Grave 282, which was the only male inhumation oriented south–north in the whole of the cemetery was, however, not only different in its direction, but also regarding its unusual size and assemblage, as well as the fact that the three vessels placed next to the deceased were more typical of the cremations usually containing larger assemblages (Fig. 8/2).

We found in this grave a straight sword and a spear, and some fragments of a small iron belt chain with rings, some pieces of a shield board, an iron fibula and a bronze bracelet.

In grave 397 there were only two spearheads and a jug remaining in the grave (Fig. 8/3).

Grave 439 was the only burial which was lined with stones in the cemetery. However, apart from a few metal fragments, and a Duchov-type fibula, nothing was left inside (Fig. 8/4).

CREMATIONS

The majority of the cremations, similarly to the ones already mentioned, were also thoroughly robbed. Most of them only had a few shards and iron fragments left in them. They were all scattered cremations, which can be separated into two groups. One of the grave groups, which can be easily distinguished from the other, must have appeared somewhere around the change in burial rites.

The almost square-shaped, relatively small scattered cremations without grave structures have grave goods containing moulded bracelets, as well as band bracelets with pottery inlay and iron fibulae with a strapped foot. The ceramic material is mostly made up of handmade vessels, but both slow and fast wheel-turned ceramics can also be found alongside these.

On the other hand, such grave goods as large storage jars, pots, bowls, and beakers – which are now included in the burials in much larger numbers than before – and knobbed anklets, fibulae with a strapped foot, iron belt-mounts with belt hooks, bent swords, chape ends, umbos with openwork decoration or zoomorphic figures, loop in loop type sword chains and sword chains made from twisted links, and the like, unquestionably date the later, and typically rectangular-shaped cremations, frequently with reconstructable grave structures, to the classic La Tène C horizon.

FEMALE BURIALS

Feature 122[6]

The large-scale grave was north–south oriented. On the shorter sides of the pit bottom lies a c. 30 cm-wide berma. There are dark discoloured stripes with similar width on the longitudinal sides, which cut the bermae. On the flat pit bottom, the bermae and the stripes make a square-shaped, smaller (113 × 79 cm) surface. The grave goods were unearthed from this area.

Ceramic goods: a black wheel-made, well-fired, polished bottle (Fig. 9/3); a yellowish-brown wheel-made, well-fired biconic vessel with an omphalic bottom (Fig. 9/12); and a greyish-brown, wheel-made bowl with S-profile (Fig. 9/14).

Metal goods: an iron knife (Fig. 9/7–9), an iron belt hook (its surface decorated with a line of smaller and bigger spheres), and an iron ring, presumably part of the belt (Fig. 9/8–9); fragments of a clay-padded, hollow bronze anklet (Fig. 9/7–8); remains of a bigger and two smaller iron fibulae, of which one is a fibula with a strapped foot. Hardly recognisable due to corrosion, there is a presumably pseudo-filigree decoration on the back-folding end of one of the smaller fibulae (Fig. 9/4–5, 10).

Moreover, we found the remains of some items in the earth of the grave during the excavation process. The small leaf-shaped object was perhaps the remains of a strongly corroded fibula, and was made of a thin bronze sheet. Since no spring device, nor the back-folding, disc-headed end have been discovered, we can only assume that maybe it was an Altmark-type fibula. Although we removed it "in situ", we were unable to salvage it (Fig. 9/6).

The human ashes were placed between the bottle and the bowl/plate, along with the assembled metal objects. In the northeastern quarter were the disarticulated limb bones of a sheep, presumably a food offering.

Based on the discolorations perceived in the mostly charcoaly filling of the grave and the position of the finds, it became clear that the wide organic prints belonged to a burial chamber structure, presumably padded with wooden posts, which we attempted to reconstruct (Fig. 9/2).

In the southeastern quarter of the feature, a greyish-brown, wheel-made vessel was unearthed, with its mouth facing down (Fig. 9/13). Its position was roughly the same as the 30–35 cm deep excavated digs in the east side and in the southwestern corner of the pit (Fig. 9/1).

The bowl/plate was clearly placed on top of the burial chamber, presumably with a drink offering. However, we do not know whether it was placed during the funeral or maybe later.

[6] Horváth 2013, 91–110.

Feature 179[7]

In the southwest corner of the grave, in the upper section of what is most probably a robber's pit, a flowerpot-shaped vessel and a part of a small kantharos were found. We excavated further shards of the vessel from the fill of the grave, about 30 cm deep, not far above the remains of some metal objects, which had cemented together with the ashes (Fig. 10/1–2).

Among the metal finds unearthed from the grave, the best-preserved objects are an iron fibula with a strapped foot, the closing ring of an iron-mounted belt, and a semiglobular piece from a ball anklet. Nevertheless, the other finds remaining in rather bad condition, which consisted of the remains of a bronze wire fibula, and a belt with iron mounts, reflect the traditional assemblages of the period well (Fig. 10/3), just like the interred group of ceramics that approximately fit the functionally standardized pottery 'sets' defined by János Németi[8] formed by a storage jar, a pot and/or a bowl and a drinking vessel.[9] There are always exceptions to the rule of course. In our case, for example, we found a bowl and pot next to the storage and drinking vessels, as well as another handmade vessel inside the grave (Fig. 10/4–6; 8).

In the La Tène cemetery of Csepel, the majority of the drinking vessels were represented by small cups, usually with handles. However, in this case, a rather well-preserved, terracotta-coloured, wheel-turned small kantharos was placed into the grave, which is probably a replica of a Hellenistic kantharoi (Fig. 10/7).

The vessel has a slightly everted rim, its two handles start from the rim, arch above it, and join to the belly. It stands on a smaller, ribbed pedestal. Above the belly line, an incised decorational line runs around the vessel, which is a zigzag line accentuated by punched dots.

Although I know I am pressed for time, I would like to show you some of the significant pieces from this group as well.

MALE GRAVES

Only six cremated male burials were found, out of which five contained weapons.

In feature 154, in addition to a bent sword, a shield boss with a zoomorphic figure and, from the grave soil, fragments of a "loop in loop" bronze sword chain also came to light. No shield board fragments were

[7] For graves nos. 179 and 149, see more in Horváth 2014, 247–248.

[8] Németi 1988, 109. – Németi 1992, 109. – Németi 1993, 120.

[9] This construction is well known in the prehistoric period. For example, it is also present in the burials of the Early Bronze Age Bell Beaker Culture at the site, the use of the so-called "beaker package" is widespread, which is made up of similar content all across Europe. – Shennan 1976, 309–331.

Fig. 9. Female cremation grave no. 122 (1–14) (photos: Csilla Tóth, drawing: Dániel Koncz, graphics: Attila M. Horváth).

Fig. 10. Female cremation grave no. 179 (1–8) (photos: Csilla Tóth, graphics: Attila M. Horváth).

Fig. 11. Selection from male cremation graves. – 1. Grave no. 154. – 2. Grave no. 369 (photos: Csilla Tóth, graphics: Attila M. Horváth).

Fig. 12. Male cremation grave no. 149 (1–9) (different scales) (photos: Csilla Tóth, graphics: Attila M. Horváth).

found. These were accompanied by a storage vessel, a pot, and a bowl (Fig. 11/1).

In grave 369, next to a bent sword, which had mostly corroded into a lump, an openwork shield boss, a spike, a whetstone and a twisted sword chain were found. Following the separation of the metal lump during conservation, further objects could be discerned (such as the remains of a knife, a spike, and iron fibulae).

Apart from the weapons, a large amount of ceramics was also excavated from the cremations, including large storage vessels.

Furthermore, in grave 369, beside the grave goods, there were a lot of animal bones (almost an entire pig) in the grave, probably from an animal which was eaten during the funeral feast. Among the bones there was also a large knife.

One of the most remarkable burials from the 2004 season, and perhaps even the whole excavation, is the male burial of grave 149 with weapons and with a kantharos (Fig. 12/1).

Of the eight swords found in the cemetery, this was the only one with a decorated scabbard. Below the double-medallioned reinforcement, we find a pelta motif with floral ornamentation. At the other end of the sword, there was an openwork chape end (Fig. 12/4).[10]

A sword chain, an umbo with globular-headed studs, a smaller piece of a shield board and a large and leaf-shaped spear were inside the grave among the weapons (Fig. 12/5–7).

From among the objects of daily use and jewellery, only a piece of a knife and an iron fragment, as well as the fragments of a bronze and iron bracelet were interred.

There were two handmade bowls (Fig. 12/3) and two small, handmade, dark grey jugs with burnished surfaces, however, certainly belong among the unusual finds (Fig. 12/2). There are four arched knobs on the pentagonally shaped belly line of the jugs, while the handle attaches to the fifth. Their bottoms are straight (Fig. 12/2–3). It seems probable that these are the unique products of a local workshop, which can no doubt be categorized among the early phase of typological development of pottery, based on Scythian characteristics[11] that had developed in the 3rd century BC.

Beside the bowls and jugs, there were also two large, bitruncated conical storage jars placed in the grave. Both were handmade, badly fired or not fired at all, obviously made specifically for the burial.

The first one was in very poor condition, just barely fired, its rim was broken, and the pieces could not be recovered. The vessel body should be biconical as well. The clay material of the vessel, surrounded by wet soil, had a soapy structure; yet after it had dried, it became powdery due to its unfired state. Furthermore, in the naturally less firm, sandy fill of the burial, several animal burrowings had disturbed the object (Fig. 12/8).

The other vessel, the pseudo-kantharos, is one of the major finds of the whole cemetery. It was obviously made just for the burial rites. It is very poorly preserved, insufficiently fired, its interior surface had not been smoothed properly (Fig. 12/10).

The bodies of the human figures bend backwards, their upper bodies are naked, they are only clad in a sort of little skirt. The soles of their feet completely touch the side of the vessel. It is possible that they are wearing wide trousers under their skirts and rather rough shoes on their feet. However, this is only indicated by the legs being less delicately made in comparison to the upper body, and the very basic forming of the feet, contrary to the hands (Fig. 12/9).

As regards the two figures, one is a man, and the other is a woman. The female characteristics are indicated by tiny incised circles on the upper body of the figure. The same little circles indicate the ankles, as well as what can be regarded as a ball anklet worn by the female figure. The skirt of the latter is also decorated. There are no representations on either figure of any other type of jewellery, torc, or bracelet.

Although the heads of the figures were damaged, with the analogies on hand we do not need much effort to imagine their faces as most probably death masks.

SPECIAL OBJECTS

Now let us look at some of those objects and find groups which are more perplexing, and at times raise complex questions as well.

First of all, there is feature 276, which is in all respects different from what we have seen among the discussed features so far. The south–west-oriented oval pit, deepening synclinally at its centre, contained only a few pieces of crumbled bones, which could probably be human remains. In its centre, a number of objects were heaped up into a pile: several pieces of four Altmark-type fibulae, as well as three bronze plates decorated with rosettes (also of unknown usage), accompanied by amber, coral, transparent amphora-shaped and other glass beads of various colours and shapes. No feature lay nearby, from which these objects could have been taken (Fig. 13/1).

Feature 436, which is a small, individual pit, contained a sword bent into an almost regular rectangle. Previously, we supposed it was what remained of a destroyed burial, but as the level of the appearance of the pit is identical to the levels of the neighbouring features, we should much rather picture this feature as a cenotaph (Fig. 13/2).

During the excavation of pit no. 170, a pointillé-decorated bronze wheel model with spokes was found in a secondary position, which raised the possibility that it originated from an earlier (Late Bronze or Early Iron Age) culture. (Fig. 13/3) Recently, however, in the northern part of Budapest, a wheel model with a decorated plate was also excavated, which could be

[10] About the weapons, see more in Horváth 2013, 161–170.

[11] Szabó 2005, 163.

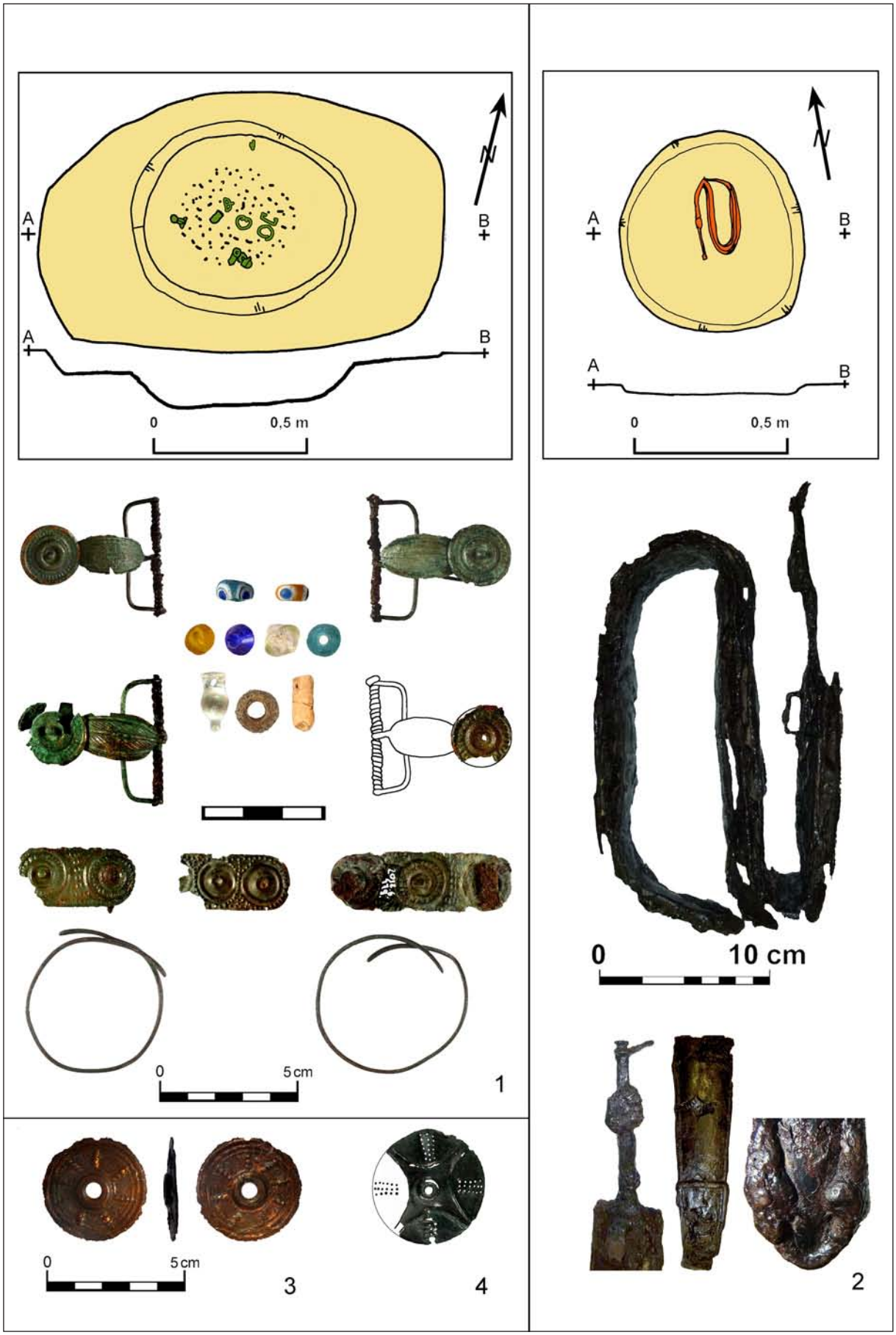

Fig. 13. Some special objects and artefacts (1–2) and Decorated wheel models (3–4). – 1. Feature no. 276. – 2. Feature no. 436. – 3. Csepel grave no. 170. – 4. Csúcshegy-Harsánylejtő (different scales) (photos: Csilla Tóth, graphics: Attila M. Horváth).

dated by its surroundings to the La Tène D period[12]. It is almost the same in size as the Csepel piece, while the two models are almost identical regarding the details of the hub (Fig. 13/4).

[12] This artefact comes from a pit house of the archaeological site of Csúcshegy-Harsánylejtő from the III. district of Budapest. Thanks to my colleague, Gábor Szilas for placing the mentioned find at my disposal.

Although the graves and finds described here are only a small fragment of the cemetery findings on Csepel Island, yet I think they reflect the fact that the items were probably made during the La Tène B1–C1 period.

However, further examination is necessary to determine when they were placed into the graves.

It is evident that the findings are really complex, and there is presumably still a lot of work to do, yet I would not rule out the possibility that a lot of surprises still lie in store as the work progresses.

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ANNULAR RING FORMS IN FEMALE GRAVES AT THE PIŞCOLT CEMETERY

GABRIELA BREZŇANOVÁ

Abstract: This paper focuses on the grave inventories from graves 100, 144 and 172 from a great La Tène-age cemetery at Pişcolt in today's northwest Romania. They are most likely the graves of women buried with multiple items of annular jewellery. A strong influence from the central Danube region is reflected in their typical inventory of artefacts and mainly in the combinations of their placement on the burial dress, in the so-called annular ring form. In the three listed graves three annular ring forms defined in the scholarly writings as models 5-2, 7-3, and 9-2 are proved.

Keywords: La Tène age, Carpathian Basin, cemetery, annular ring form, contacts

The burial site of Pişcolt in today`s Romania belongs to the best-known easternmost cemeteries in the Carpathian Basin. Thanks to the numerous graves and their inventory structure, it presents a very important source for the study of the specifics of material culture in the eastern Celtic enclave and cultural influences from different regions of the central European region. At the site of Pişcolt, 185 graves, 75 of those skeletal, were excavated in the 1970s. The composition of the inventory speaks for a long-term history of burials beginning somewhere at the end of the phase LT B1 and fading in the end of the phase LT C1.[1] The orientation of the buried in the graves of Pişcolt was not uniform, but most of the buried were laid into the grave with the head towards the northwest (26 out of 67 inhumation burials).

The issue of the annular jewellery combination the women at the La Tène age cemetery of Pişcolt were buried with was already partially taken into account in the scholarly literature.[2] In this paper I present other interesting results from the analysis of the combination of annular jewellery of the women from the cemetery in Pişcolt.

As there is no physical-anthropological evaluation of the grave site of Pişcolt available, I focused my study on the skeleton graves of individuals buried with anklets on their ankles. The anklets represent a typical item of Celtic women's jewellery,[3] so that is why I assume that the persons buried with anklets were female. Therefore, I devoted my attention to the annular ring forms, part of which are the anklets. The annular ring forms were described in detail in his dissertation and later in some scholarly articles by M. Furman.[4] He defined nine basic annular ring forms, which he noticed in the cemeteries in the central Danubian area. Based on monitoring of their occurrence in the flat Celtic cemeteries in the central Danubian and western La Tène territory, he also dealt with the question of their genesis, and, in the case of most of them, he pointed to their central Danubian roots. It seems that characteristic combinations of types of annular jewellery may determine the area to which the bearer of the annular ring form had a close relationship. In the cemetery of Pişcolt several women were buried with combinations of annular garnitures whose centre of occurrence falls into the central Danubian territory. One of these combinations of annular garnitures consists exclusively of a pair of anklets on the ankles of the buried woman. The occurrence of this annular ring form in the central European area was observed by M. Furman, who defined it as annular ring form 2.[5] He found out that its most numerous occurrences are located in the area of southwest Slovakia, where the tradition of wearing lasted from the LT B1 phase up to the middle La Tène period. He also pointed to an interesting fact of a relatively high occurrence rate of the annular ring form 2 at the cemetery in Pişcolt. It was present in as many as five graves – 3, 30, 119, 159, 167.[6] M. Furman did not carry out much research into the distribution of other annular ring forms defined by him at the cemetery of Pişcolt. The next annular ring form with its genesis in the central Danubian region that occurred repeatedly within the cemetery of Pişcolt is annular ring form 3-4 defined by M. Furman.[7] It consists of a pair of anklets on the ankles of a buried woman and a bracelet on her left wrist. The occurrence of this model of circular garnitures at the cemetery of Pişcolt (in graves 34, 177, 181) was already mentioned in the scholarly

[1] Németi 1988. – Németi 1989. – Németi 1992. – Németi 1993.

[2] Brezňanová 2012. – Furman 2014a.

[3] Furman 2014b, 494.

[4] Furman 2009. – Furman 2012. – Furman 2014a. – Furman 2014b.

[5] Furman 2014a, 251–258.

[6] Furman 2014a, 253, 257.

[7] Furman 2012, 274 and Fig. 1.

writings.[8] However, we can find more annular ring forms in the cemetery of Pişcolt, the genesis of which could be found in the central Danubian area.

In one of the oldest graves in the cemetery of Pişcolt, in grave 144, a woman with a pair of anklets on her ankles, a bronze bracelet on her right wrist and a bronze stick torc around her neck was buried (Fig. 1/A). On the right shoulder of the skeleton fragments of an iron fibula were laid. There was a luxurious big bronze fibula and fragments of an unidentified iron-made artefact (perhaps a massive fibula) on the chest, and on the left shoulder, fragments of an iron chain were present. A curiosity of the inventory was a bronze ring put on the torc.[9] The anklets typologically belong to the smooth stick rings with mortice-and-tenon joints. The bronze stick bracelet was presumably saddle-shaped bent with one end in the shape of poppy head and with a catch clamp. The bronze torc is characterised by a massive sealer-like end and a plastic decoration with vegetable motifs at both ends and in the middle of the length of the body. The bronze ring was notched. The luxurious bronze fibula from grave 144 corresponds by its shape to the massive fibulae that are normally distributed in the graves at the cemetery of Pişcolt but cast in iron. The latest iron fibulae of this type occurred at the cemetery of Pişcolt as early as the end of the phase LT B1 and fade in the end of LT B2.[10] The typological ancientness of the annular jewellery allows grave 144 to be dated as early as the end of phase LT B1.[11]

An annular ring form consisting of a pair of anklets, a bronze bracelet on the wrist and a torc was already defined by M. Furman as form 5-2 and he pointed out that it represents a habit characteristic for the area of southwest Slovakia and Moravia during the phases LT B1 and B2 (Fig. 1/B).[12] In the western La Tène environment annular ring form 5-2 has not been evidenced in the phase LT B1 and later in the phase LT B2 it was evidenced only sporadically.[13] In this context it is interesting that the torc from grave 144 in Pişcolt has an analogy with the region of Moravia. Very similar bronze torcs came from the disrupted grave at Pouzdřany-Zadné láty in Moravia.[14] It is probable that torcs found in both Pişcolt and Pouzdřany-Zadné láty were imported from the west.

Torcs made of a bronze rod with massive stamp-like ends meeting each other, offset by a massive roll represented in various variants were very common, mainly in the regions of today's northeastern France.[15] Ch. Möller notes the torc with profiled ends and an offset roll among the characteristic jewellery for the phase LT B1a in Lorraine.[16] A complicated cultural background for the first Celts buried in the cemetery of Pişcolt is pointed out by the fact that, although the woman buried in grave 144 was decorated with an annular ring form with its origins found in the central Danube region, the annular jewellery itself, the torc and also the anklets and bracelet, most-likely represent an import from the western La Tène milieu.

The next annular ring form at the cemetery of Pişcolt to which I want to bring attention is the form which consists of a pair of anklets on the ankles, a bronze bracelet on the left wrist and an iron armlet on the left shoulder. M. Furman defined this annular ring form as form 7-3,[17] while he searched for its origin in the central Danube area (Fig. 2/A). This annular ring form is represented in this territory during the phase LT B2 and most probably survives into the phase LT C1. M. Furman did not make any note of its presence in the La Tène area.[18] On the cemetery of Pişcolt there is a woman buried with the described annular ring form in grave 172 (Fig. 3/A).[19]

The woman lying in grave 172 in Pişcolt had bronze rings for anklets divided by rolls and with the ends in the shape of a poppy head. On her left wrist she had a ring functioning as a bracelet divided by alternating smooth and plastically decorated ribs, with the ends joined by a cotter pin. Her left arm was decorated by an iron armlet. The grave inventory was complemented by a so-called spearhead-shaped iron lace, a small iron and amber ring, an iron chain and two vessels.[20] The anklets in grave 172 seem archaic compared to the other parts of the inventory. The bracelet and the spearhead-shaped iron lace represent typologically somewhat later additions. Grave 172 could be dated perhaps to the older part of phase LT B2.[21]

In grave 174 a woman was buried whose burial dress showed a combination of annular jewellery characteristic for form 7-3 (Fig. 3/C). On the ankles of the skeleton in this grave tubular sheet anklets with transversely ribbed hoops (so called caterpillar-shaped anklets) were found, and on the left wrist was found a bronze bracelet divided by ribs, of which every other

[8] Brezňanová 2012, 289–290. – In the cited study attention was paid to the graves 35, 177 and 181 from the cemetery at Pişcolt. According to Furman 2012, 274 and Fig. 1, in graves 177 and 181 the women were buried with an annular ring form 3-4. This annular ring form is evidenced in grave 34 at the cemetery (Németi 1988, 54 and Fig. 3). In grave 35 a woman was buried with one of the variants of annular ring form 7-3 (according to Furman 2014b, 499–500 and Fig. 3).

[9] Németi 1992, 24 and Fig. 25.

[10] Brezňanová 2009, 233.

[11] According to chronology by Bujna 2003. – Bujna 2005. – Bujna 2011.

[12] Furman 2012, 274, 276 and Fig. 1.

[13] Furman 2009, 80 and Map 10. – Furman 2012, 276.

[14] Klíma 1986, 43 and Fig. 18/1.

[15] Charpy, Roualet 1991, 112, 113, 119, 129, 132, 134, 140, 142.

[16] Möller 2000, 416 and Fig. 7/6.

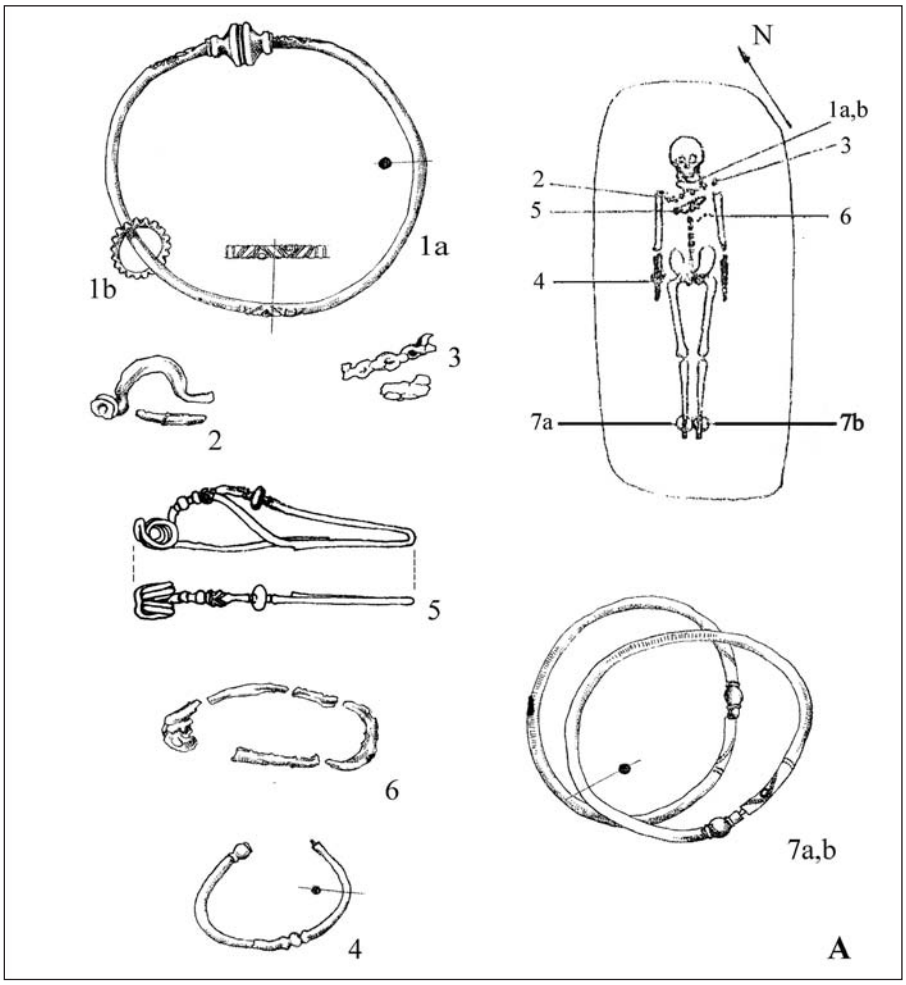
[17] Furman 2014b, 499–500 and Fig. 3.

[18] Furman 2014b, Fig. 3.

[19] See also Brezňanová 2012, 290.

[20] Németi 1989, 95 and Fig. 15.

[21] According to chronology by Bujna 2003. – Bujna 2005. – Bujna 2011.



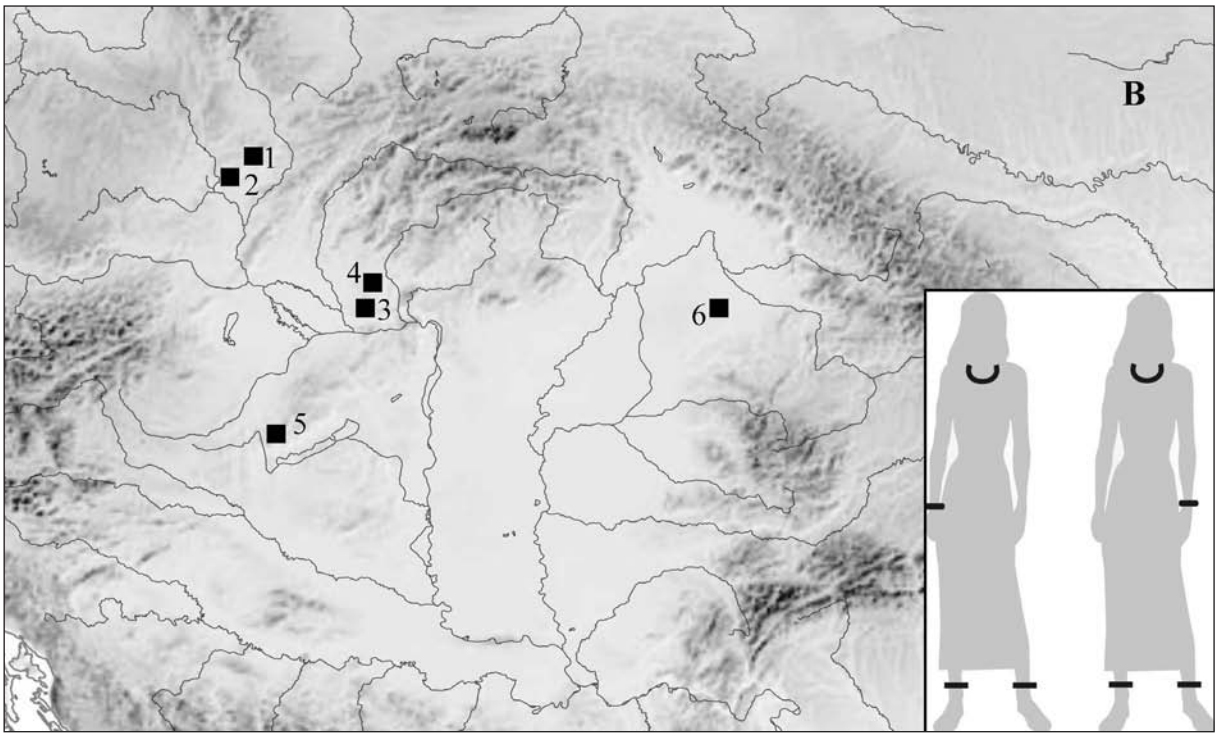


Fig. 1. A: Pişcolt, grave 144 (according to Németi 1992, Fig. 25). – B: Occurrence of model of annular ring form 5-2 in the Carpathian Basin and on the Moravia. – 1. Brno-Maloměřice. – 2. Hluboké Mašůvky. – 3. Hurbanovo-Bacherov majer. – 4. Michal nad Žitavou. – 5. Rezi-Rezicseri (according to Furman 2009, Tab. 25, Map 10. – Furman 2012, Fig. 1). – 6. Pişcolt (grave 144).

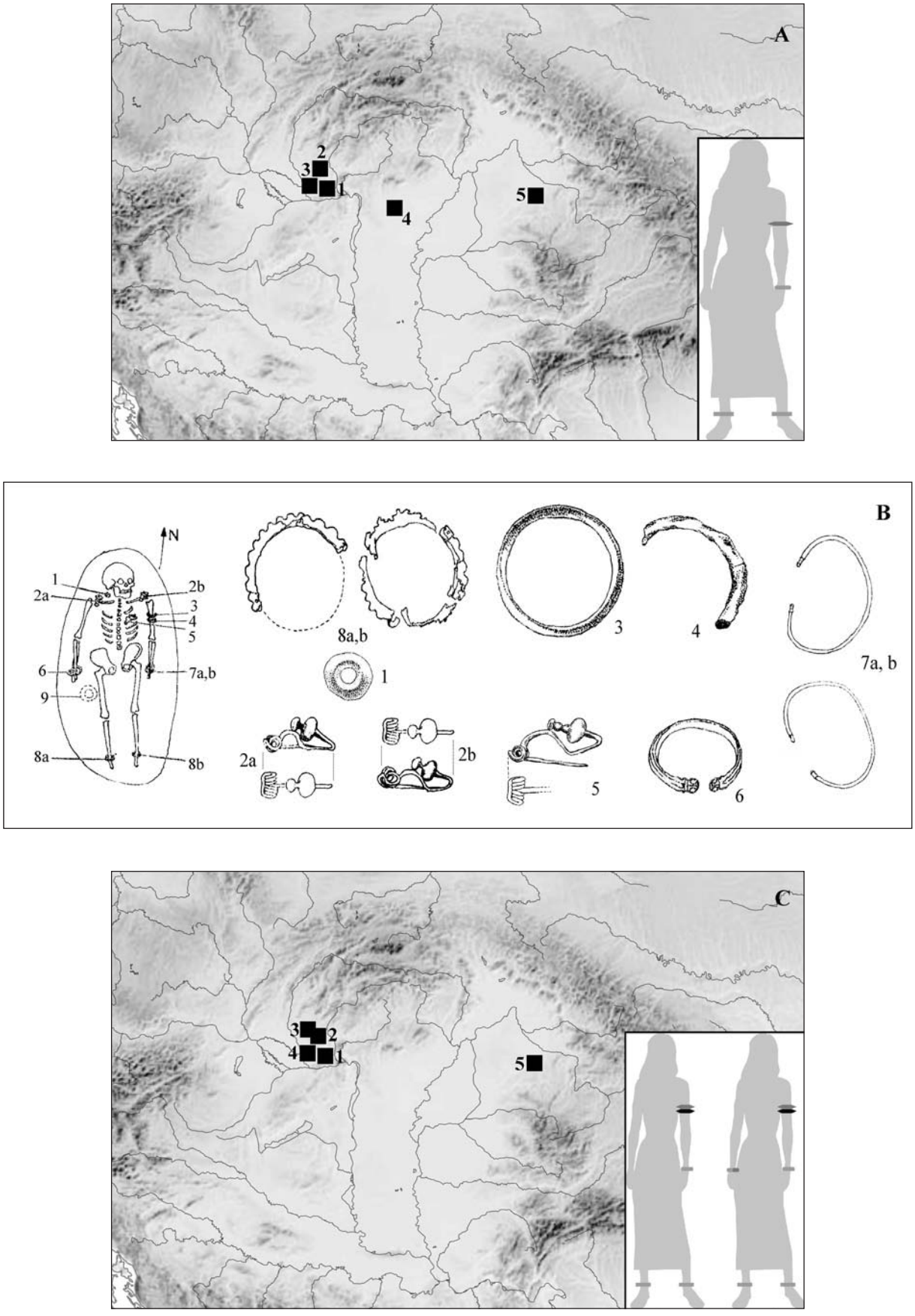
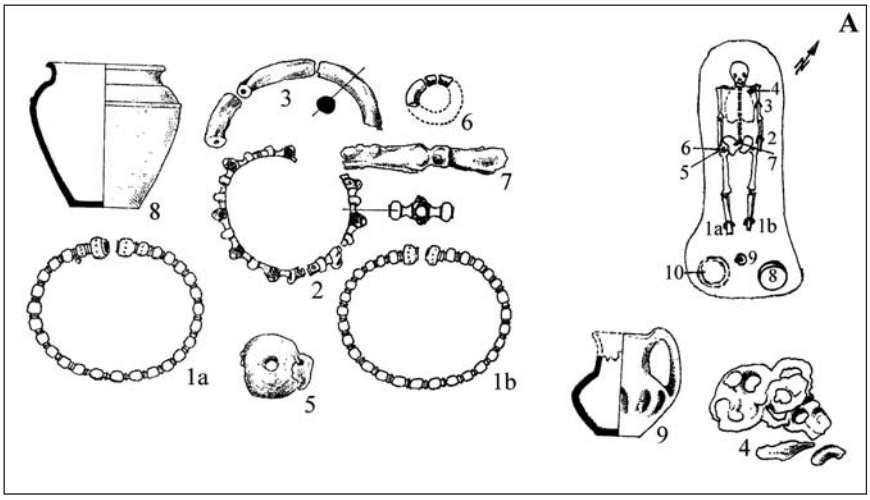
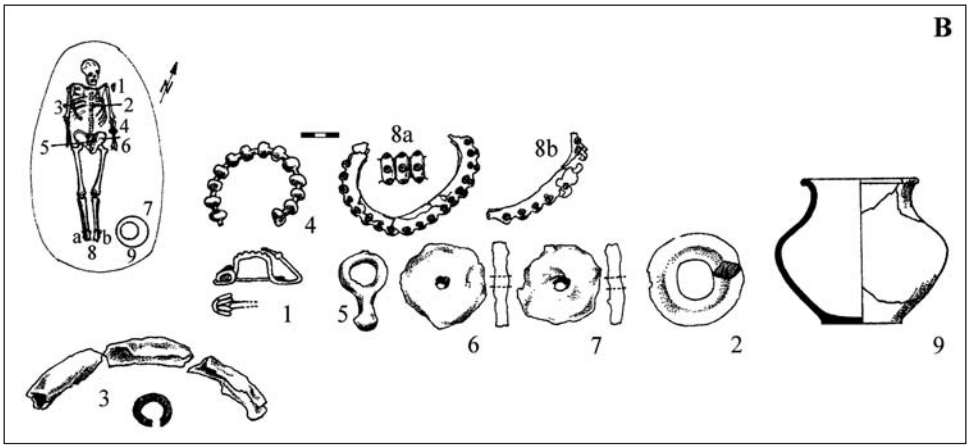


Fig. 2. A: Occurrence of model of annular ring form 7-3 in the Carpathian Basin. – 1. Dubník. – 2. Maňa. – 3. Palárikovo. – 4 Jászberény (according to Furman 2009, Tab. 34, Map 16. – Furman 2014b, Fig. 3). – 6. Pişcolt (graves 35, 172, 174). – B: Pişcolt, grave 100 (according to Németi 1992, Figs. 14–15). – C: Occurrence of model of annular ring form 9-2 in the Carpathian Basin. – 1. Dvory nad Žitavou. – 2. Maňa. – 3. Michal nad Žitavou. – 4. Palárikovo (according to Furman 2009, Tab. 42, Map 20. – Furman 2014b, Fig. 4). – 5. Pişcolt (grave 100).





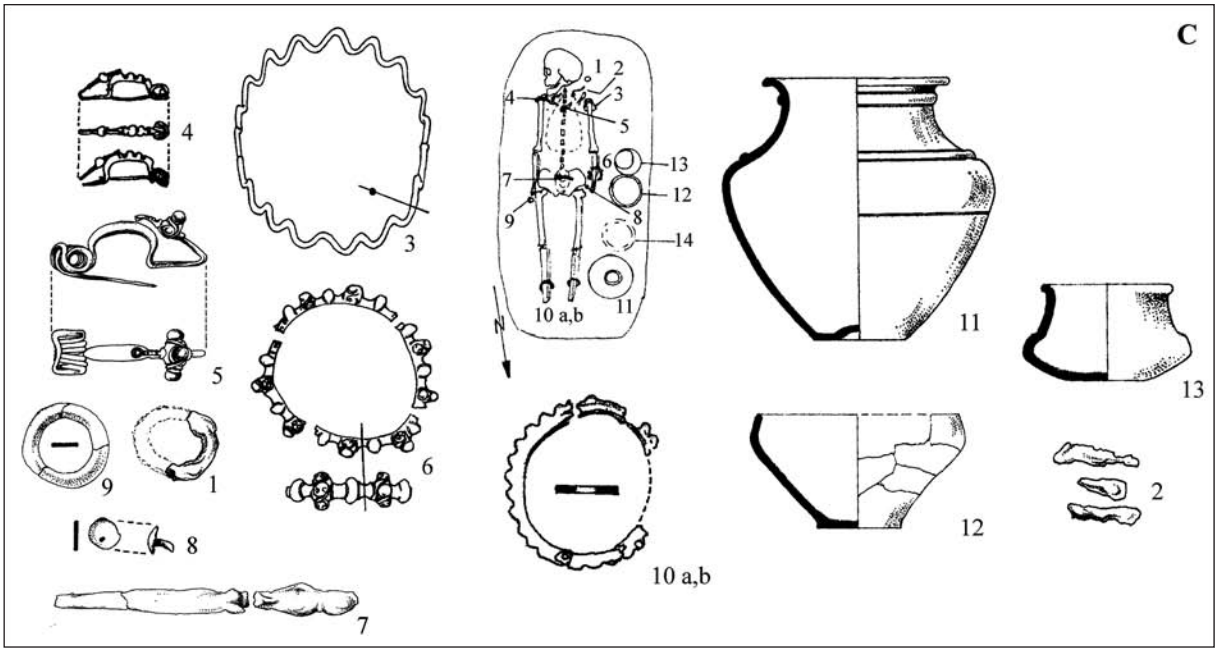


Fig. 3. A: Pişcolt, grave 172. – B: Pişcolt, grave 35. – C: Pişcolt, grave 174 (according to Németi 1989, Fig. 5/15–17).

one was decorated plastically. The left shoulder of the woman in grave 174 was decorated by an S-shape wound armlet made of silver wire. The material of the armlet represents a different feature in the burial dress of the woman from grave 174 from the definition of annular ring form 7-3 according to M. Furman.[22] Another part of the burial inventory was a pair of bronze fibulae on the right shoulder, a massive bronze fibula of the transitional scheme on the chest, a spear-head-shaped iron lace on the waist, an amber circlet on the right hand (in the function of a ring?) and a small iron circlet near the head of the corpse. The burial additions were complemented by four vessels.[23] A pair of bronze fibulae was defined by a frame-shaped ribbed bow and slightly moulded foot not strapped to bow. Fibulae of this type were commonly distributed in the graves at the cemetery of Pişcolt during the whole of phase LT B2 and its distributional connection with this cemetery points to a supposed production at a local "workshop".[24] Typologically, the youngest piece of jewellery in the inventory of grave 174 is a massive bronze fibula of the transitional scheme with a plastically decorated roll on the base.

Due to the motif of the decoration of the roll on the foot, the omega-shaped vault of the massive bow and the medium-sized diameter of the winding, this fibula strongly evokes fibulae that appeared at the end of phase LT B2 in the cemeteries of the central Danube region, for example Chotín, Palárikovo, Jászberény.[25] In this context the orientation of the buried woman in grave 174, with her head pointing southeast,[26] is also interesting.

In grave 35 at the cemetery of Pişcolt a woman with the combination of annular jewellery closely resembling the annular ring form 7-3 was buried (Fig. 3/B).[27] Her ankles were decorated with tubular sheet anklets with a transversely ribbed, hoop-moulded decoration of triple protuberances (so called Warzen-fussringen) and the bronze bracelet on her left wrist was a so-called Knotenarmring. These rings were complemented by an iron armlet, which was not on the left but on the right shoulder of the buried woman. Her pieces of jewellery were complemented by an amber circlet on her chest, a bronze fibula on her left shoulder, and a bronze fragment and two iron circlets, perhaps parts of a belt, in the area of the pelvis. The inventory of grave 35 also included two vessels.[28] According to the composition of the inventory we can date grave 35 back to the older period of the phase LT B2.[29]

Grave 100, with a buried woman with multiple pieces of annular jewellery, seems interesting in connection with the topic under discussion (Fig. 2/B). On her ankles were found bronze tubular sheet anklets with transversely ribbed hoops (so called caterpillar-shaped anklets); on her left wrist, a pair of bracelets of a subtle, smooth bronze stick of elliptical shape with gently profiled ends, and on her right wrist was a massive bronze bracelet with sealer-like ends. On the left arm of the buried woman two armlets were found; one of them was made of sapropel and the other of iron. The inventory of grave 100 in Pişcolt was completed by an amber circlet, which was lying on her neck, a pair of bronze fibulae with a thistle foot on her shoulders and a massive bronze fibula with a large knob in the area of the chest. In this grave one vessel was also found.[30] According to its composition, grave 100 in Pişcolt could be dated back to the younger period of phase LT B2.[31] M. Furman, in his typology of the annular ring form, defined model 9-2, which he characterized by representation of a pair of anklets and two armlets on the left arm – sapropel and iron.[32] The representation of armlets in this annular ring form was quite varied, and M. Furman therefore defines as many as six variants of the mentioned form.[33] The next variant of form 9-2 is recorded by the annular jewellery in grave 100 in Pişcolt which is characterized by a pair of bronze bracelets on the left wrist and a bronze bracelet on the right wrist. According to M. Furman the distribution of the graves with recorded annular ring form 9-2 is concentrated in the area of southwest Slovakia, in the cemeteries in the basin of the Žitava River (Fig. 2/C).[34] While annular ring form 9-2 is rather scarce in the phase LT B2, it is more frequent in the phase LT C1.

EVALUATION

At the cemetery of Pişcolt, situated in the eastern part of Carpathian Basin, a high occurrence of women's graves is recorded. These women were buried with the burial dress with combinations of annular jewellery whose origin falls into the area of the central Danube region. There are as many as five annular ring forms represented in those graves. The occurrence of forms 2 and 3-4 at the cemetery of Pişcolt has already been the focus of scientific

[22] Furman 2014b, 499–500 and Fig. 3.

[23] Németi 1989, 95 and Figs. 16–17.

[24] See fibulae of variant BS 7B according to Brezňanová 2009, 70.

[25] See fibulae of type BF-C4-B according to Bujna 2003, 51 and Fig. 13.

[26] Németi 1989, 95.

[27] See also Brezňanová 2012, 289–290.

[28] Németi 1989, 82 and Fig. 5.

[29] According to chronology by Bujna 2003. – Bujna 2005. – Bujna 2011.

[30] Németi 1992, 80 and Figs. 14–15.

[31] According to chronology by Bujna 2003. – Bujna 2005. – Bujna 2011.

[32] Furman 2014b, 503 and Fig. 4.

[33] Furman 2009, Tab. 42.

[34] Furman 2009, Tab. 42. – Furman 2014b, 503.

literature.[35] M. Furman noted that form 2, consisting only of a pair of anklets on the ankles, is recorded in five graves (3, 30, 119, 159, 167), which makes it the most frequently represented annular ring form at the cemetery of Pişcolt.[36] In three graves (34, 177, 181), there were women with a pair of anklets and a bronze bracelet on the right and left wrists (annular ring form 3-4).

Analysis of other graves containing anklets at the cemetery of Pişcolt showed representation of another three annular ring forms with the centre of occurrence in the central Danube region. One of the oldest of them is the form consisting of a pair of anklets, a bronze bracelet on the right wrist and a torc which was buried with the woman in grave 144. In three graves from the cemetery in Pişcolt (172, 174 and 35) the form 7-3 and its variations were present. During the phase LT B2 women were buried with a pair of anklets, a bronze bracelet on the left (right) wrist and an iron (silver) armlet on the left arm. In the younger period of phase LT B2 we have a scant record of annular ring form 9-2. It consisted of a pair of anklets, a pair of bronze bracelets on the left wrist, a bronze bracelet on the right wrist and a pair of armlets on the left arm, one made of sapropel and the other of iron.

The above-mentioned annular ring forms are indicia for the hypothesis that the women buried in graves 144, 172, 174, 35 and 100 used to have some kind of relationship with the central Danube region. The orientation of the skeleton in the grave shows a certain association with the home environment. For the region of southwest Slovakia, the head of the buried person pointing to the south or southwest is characteristic. Only the woman in grave 174 has her head pointing southwest.[37] The women lying in the other graves cited have their heads pointing northwest, as do the majority of those buried in the cemetery of Pişcolt.

Considering the earlier findings in this matter[38] we have recorded 13 women's graves at the cemetery of Pişcolt in today`s Romania which present different annular ring forms, the form of which is located in the region of the central Danube. Based on this fact and on the occurrence of imports from this region in Pişcolt, for example tubular sheet anklets with a transversely ribbed, hoop-moulded decoration of triple protuberances,[39] we can talk about a strong cultural influence from the central Danube River region, most likely associated with certain movements of small groups of people, perhaps at the end of the phase LT B1 but mainly during phase LT B2. This direction of cultural influence from west to east is not as strong in the phase LT C1.

RÉSUMÉ

This paper deals with the results of the analysis of the structure and distribution of annular jewellery in the funeral dress of women buried at the Celtic cemetery in Pişcolt in today's northwest Romania. Attention was paid mainly to the female skeletal graves 100, 144, 172. The oldest one is grave 144 that could possibly be dated to the phase LT B1. The woman buried in this grave was adorned with a pair of anklets on her ankles, a bronze bracelet on her right wrist and bronze torcs around her neck. This structure and distribution of annular jewellery reflects the definition of annular ring form 5-2 according to M. Furman, who noted the concentration of its distribution in the area of southwest Slovakia and Moravia during the phases LT B1 and B2.[40] In grave 172 at the cemetery of Pişcolt, a woman with a pair of anklets on her ankles, a bronze bracelet on her left wrist and an iron armband on her left arm was buried during the older part of the phase LT B2. This annular ring form, form 7-3, is more numerously proven in the graves at the cemeteries in the central Danube region in the phase LT B2 and it continues up to phase LT C1.[41] At the cemetery of Pişcolt modifications of annular ring form 7-3 appeared in two graves. In grave 174 the woman had an armband on her left arm, although not an iron one but rather one made of a silver wire. In grave 35 was a woman adorned with an iron armband, but on the right arm rather than the left. Grave 100, in which a woman with multiple items of annular jewellery was buried, could be dated back to the earlier part of phase LT B2. Her jewellery consisted of a pair of anklets on her ankles, a pair of bronze bracelets on her left wrist, a bronze bracelet on her right wrist and two armbands on her left arm, while one of them was made of sapropel and the other of iron. This combination of annular jewellery represents one variant of the annular ring form 9-2. This annular ring form is characterized by a diversity of bracelet presence. The distribution of the annular ring form 9-2 in more varieties has been recorded mainly at the burial sites in southwest Slovakia during the phase LT B2, but mainly in the phase LT C1.[42] Although the women buried in graves 144, 172, 174, 35, and 100 were buried with annular ring forms, the origin of which is sought in the central Danube region, most of their jewellery itself is considered as a supposed import from a western La Tène milieu. A certain link

[35] Brezňanová 2012. – Furman 2014a.

[36] Furman 2014a, 253, 257.

[37] In this grave there was also a massive bronze fibula of transition schema with an omega-shaped bow and plastic moulded knob on the foot and a spring of the medium average size, with analogies occurring in the graves at the cemetery in the central Danube region.

[38] See Brezňanová 2012. – Furman 2014a.

[39] See Brezňanová 2012, Pl. 1B.

[40] Furman 2012, 274, 276 and Fig. 1.

[41] Furman 2014b.

[42] Furman 2009.

of these women with the domestic environment is pointed to by the orientation of their burials. Except the woman in grave 174, all the others were put in the grave with their head pointing northwest, which is the most common orientation of burials on the cemetery in Pişcolt. Within the graves presented in this paper there are 13 graves[43] at the cemetery of Pişcolt where we can prove that the women buried there were adorned by combinations of annular jewellery characteristic for the central Danube region. It is one of the hints pointing out a strong cultural influence from the central Danube region that could be associated with a certain movement of smaller groups of people, perhaps already in the end of phase LT B1, but mainly in the phase LT B2.

[43] See Brezňanová 2012. – Furman 2014a.

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GRAVE NO. 49 WITH A LINCHPIN FROM THE LA TÈNE CEMETERY AT FÂNTÂNELE-DÂMBU POPII. *PARS PRO TOTO* OR MAGICAL PRACTICE?

AUREL RUSTOIU

Abstract: The weaponry discovered in the cremation grave no. 49 from the La Tène cemetery at Fântânele-Dâmbu Popii suggests that the deceased was a warrior. The panoply of arms consisted of a spear and a shield. The spearhead and the shield boss were carefully laid into the pit upon being burnt on the pyre together with the deceased; the unburnt iron linchpin, which was part of a chariot, was placed next to them. The funerary inventory also included one iron ring which belonged to the belt and four brooches that date the grave to La Tène C1. The rituals performed during the funerary ceremony and some of the objects included in the inventory played an important symbolic role in the construction of the deceased's social identity. The significance of the weaponry and the linchpin is discussed from this point of view. The latter object may suggest the practicing of a *pars pro toto* ritual. On the other hand, the linchpin could also illustrate some other magical practices that were performed during the funerals.

Keywords: weapons, linchpin, chariots, *pars pro toto*, La Tène, Transylvania

INTRODUCTION

The Celtic cemetery at Fântânele-Dâmbu Popii (Matei commune, Bistriţa-Năsăud County) is located in northeastern Transylvania, in an area where other early and middle La Tène cemeteries and settlements have also been identified.[1] Their presence indicates a dense habitation of the area in question. The cemetery was accidentally discovered in 1961, when some agricultural works destroyed several burials. Ştefan Dănilă from the Museum of Bistriţa recovered the funerary inventories of two burials; he also identified eight other graves in 1967 through some small-scale excavations.[2] I. H. Crişan from the Institute of History in Cluj-Napoca resumed the archaeological investigations in 1969. The entire cemetery was unearthed by 1974 and 84 other graves were identified, of which eight were inhumations and the remaining ones were cremations. Chronologically the evolution of the cemetery covers the La Tène B2–C1 sub-phases. Due to the large number of funerary contexts and its long-lasting existence, the cemetery is a reference site for the Celtic horizon in Transylvania. However, the investigations carried out by I. H. Crişan remained largely unpublished.[3] A process of recovering archaeological information regarding this cemetery was recently initiated and some studies that focus on particular funerary contexts and inventories have already been published.[4]

One of the graves that belong to this cemetery, no. 49, displays a series of particularities of the funerary ritual which are less common in the Carpathian Basin. Among these is the presence of one iron linchpin. The scope of this article is to present and discuss the funerary inventory and its significance.

DESCRIPTION OF THE ARCHAEOLOGICAL CONTEXT

This is a cremation grave with the remains laid into a pit which has a rectangular shape with rounded corners. The burial pit is oriented NE–SW, its maximum depth is 0.75 m, while the dimensions are 2 × 1.35 m (Fig. 1).

The cremated human bones were laid in the southwestern side of the pit in a compact pile and on top of them was placed the meat offering (several pig bones were recovered). Some iron objects were found among the cremated bones: two rivets belonging to the shield boss (one is now lost), one ring, one tube made of sheet iron and one large brooch with spheres on the foot. When the cremated bones were lifted, it was noticed that the same pile of burnt remains also contained two iron brooches and fragments of another made of bronze. These artefacts were not added to the drawing of the grave.

One iron spearhead placed perpendicularly to the long axis of the pit and one shield boss placed on top of it were found in the northeastern side of the grave. Both artefacts showed traces of burning when they were discovered. The iron linchpin having a crescent-shaped head was laid next to them, at 0.1 m to the west.

[1] VAIDA 2006.

[2] DĂNILĂ 1978.

[3] CRIŞAN 1975.

[4] RUSTOIU, MEGAW 2011. – Rustoiu 2014a. – RUSTOIU, BERECKI 2015.

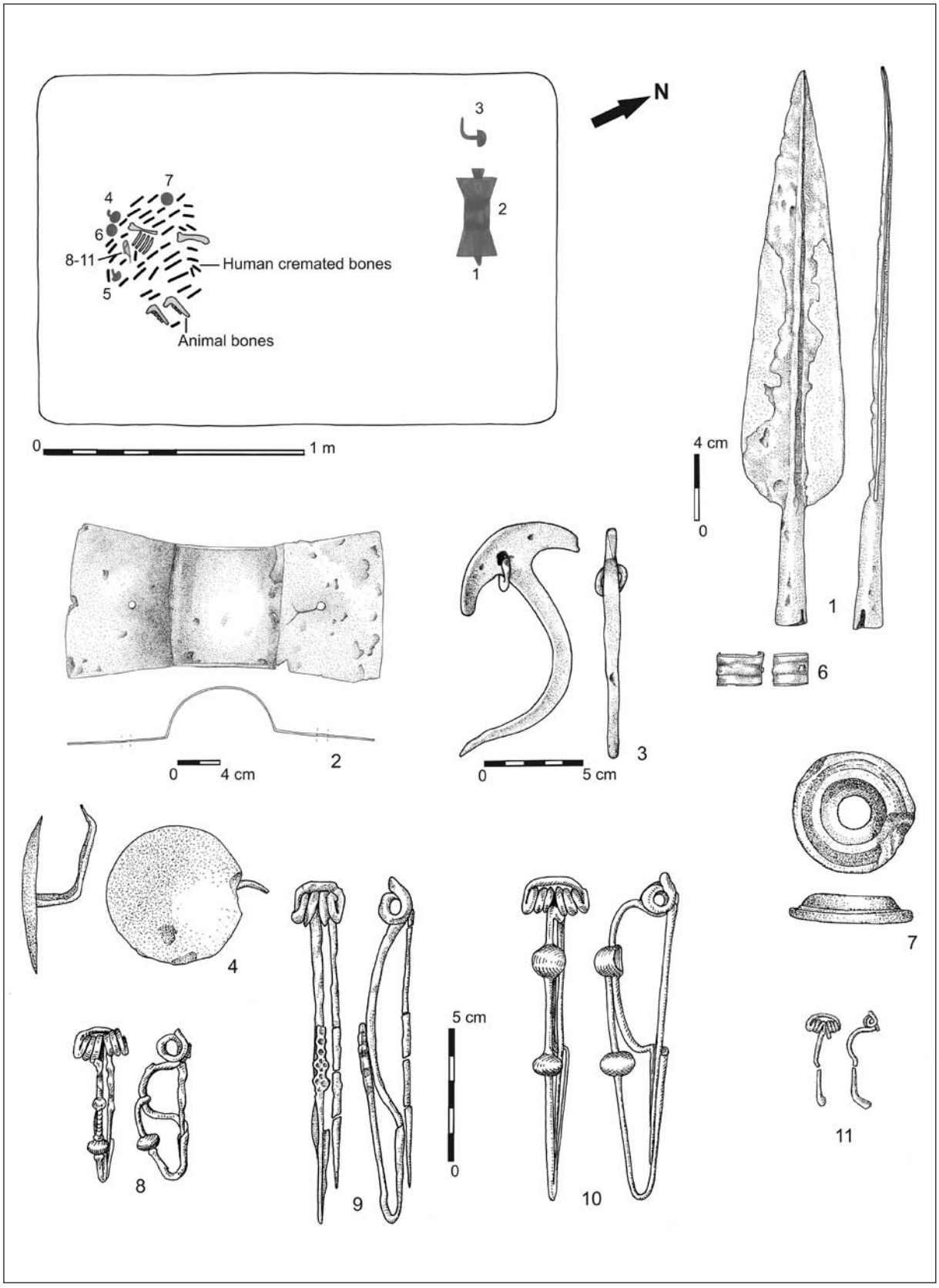

Fig. 1. Plan and inventory of grave no. 49 at Fântânele-Dâmbu Popii (graphics: A. Rustoiu).

DESCRIPTION OF THE FUNERARY INVENTORY

1. Iron spearhead having a laurel leaf shape, with a central nervure in relief. Dimensions: total length – 34.5 cm (of which the socket length – 7.3 cm); diameter of the socket base – 1.9 cm.
2. Iron shield boss with trapezoidal wings (with slightly curved rims). The convex central part has the edge decorated with a longitudinal incised line. Dimensions: total length – 28.8 cm; length and width of the wings – 9.2 × 14.2 cm; length of the convex part – 10.4 cm; height of the convex part – 4.5 cm.
3. Iron linchpin having a crescent-shaped head and a curved stem. The head has a perforation through which an iron ring was affixed (probably the extremity of a chain). Dimensions: maximum height – 12 cm; maximum width of the head – 7 cm. The height measured between the base of the crescent-shaped head and the beginning of the maximum curvature of the stem, which indicates the diameter of the chariot's axle – 4 cm.
4. Iron rivet having a disk-shaped head and a bent nail, belonging to the shield. Dimensions: disk diameter – 5 cm; total length of the nail – 4.8 cm. The nail is bent at a right angle and at 1.4 cm from the disk-shaped head, which indicates the total thickness of the shield consisting of the sheet cover, wooden body and handle.
5. Another rivet, probably identical to the previous one, is now lost.
6. Damaged tube made of iron sheet, decorated with transversal grooves and fitted with an iron nail. It was affixed around the base of the spearhead's socket. Dimensions: height – 1.7 cm; the diameter of 1.9–2 cm corresponds to that of the spearhead's socket.
7. Massive iron ring having a semicircular cross section. Dimensions: total diameter – 4.4 cm; internal diameter – 1.2 cm.
8. Iron brooch of the middle La Tène scheme type. The bilateral spring consists of six coils and the wire is external. The bow is curved and the bent foot has a small sphere. Dimensions: length – 6 cm.
9. Fragmentary iron brooch of the middle La Tène scheme type. The bilateral spring consists of four coils and the wire is external. The fragmentary foot (the part that was attached to the bow is missing) is flattened on the upper side and decorated with punched dots that form a vegetal decoration, which was probably enamelled. Dimensions: length – 13.2 cm.
10. Iron brooch of the middle La Tène scheme type. The bilateral spring consists of six coils and the wire is external. The bent foot has two large spheres, of which one is attached to the bow. Dimensions: length – 12.5 cm.
11. Fragmentary bronze brooch, probably of the middle La Tène scheme type. Only the bilateral spring with six coils and external wire were preserved, together with some of the bow. Dimensions: preserved length – 3.2 cm.

ANALYSIS OF THE INVENTORY AND DATING

The panoply of arms buried with the deceased consists of a spear and a shield, and the funerary pit contained the metal parts that survived the cremation process (Fig. 2).

Fig. 2. Iron shield boss and spearhead from grave no. 49 at Fântânele-Dâmbu Popii (photos: A. Rustoiu).

The iron spearhead (no. 1) has a laurel leaf-shaped blade, nearly triangular, with a wider base and an elongated shape, while the central nervure is rendered in relief. The socket is rather short in comparison with the blade's length. This is probably the most common form, being widely encountered and largely dated. The dimensions of the blade and socket indicate that the spearhead from Fântânele belongs to the Gournay Ib type.[5] Similar examples are widespread in the Carpathian Basin.[6]

The spearhead's socket was fitted with a tube made of iron and decorated with horizontal grooves (no. 6), which still preserves some of the nail that held the spearhead in place on the wooden shaft. Such tubes or rings, sometimes decorated, which were meant to hold the spearhead tightly on the wooden shaft, are less common among the La Tène finds. One example is the spearhead from grave no. 29 at Belgrade-Karaburma, which had an iron ring fitted around the socket,[7] while another example comes from grave no. 59 at Maňa, having decorated bronze rings.[8] Other spearheads that

[5] Rapin 1988, 133 and Fig. 66.

[6] See, for example, Szabó, Tankó, Czajlik 2012, 119–123.

[7] Todorović 1972, 19, no. 3 and Pl. 12/8.

[8] Benadik 1983, 34, no. 1 and Pl. 23/3.

had similar tubes were also found in the Carpathian Basin at Maňa, in grave no. 32[9] and at Sajópüspöki in northeastern Hungary.[10] Lastly, an identical tube was found in grave no. 12 at Mátraszőlős.[11]

The shield boss (no. 2) made of a single metal sheet that has slightly trapezoidal wings with semi-circular rims belongs to the Gournay V type,[12] or to the II1B type in the classification proposed by M. Domaradzki for the eastern Celtic environment.[13] Shields with this kind of boss and having very similar dimensions and rivets to the one from Fântânele (see no. 4) are widely encountered from western to central Europe. These are also frequently found in the Carpathian Basin. Among the numerous examples can be mentioned those from Fère-Champenoise[14] and the sanctuary at Gournay-sur-Aronde,[15] in France, from the cemeteries at Darmsheim in Baden-Württemberg[16] and Manching-Steinbichl, Hundsrucken, Pförring, München-Obermenzing, in southern Bavaria,[17] and from Chotin,[18] Malé Kosihy,[19] Drňa,[20] Mátraszőlős,[21] Belgrade-Karaburma[22] or Dobova,[23] in the Carpathian Basin. Chronologically the earliest examples from the Carpathian Basin appeared in archaeological contexts dated to the end of La Tène B2, like the graves no. 16 at Chotin and no. 149 at Malé Kosihy.[24] However, the majority of them belong to some panoplies of arms dated to La Tène C1,[25] though in some regions they were also used during La Tène C2.[26]

The massive iron ring (no. 7) was probably used as part of a belt. More or less similar rings, made of bronze or iron, tubular or massive, come from burials with weapons and also from those without such grave goods. In some cases in which two or three rings were associated, they were used to hang the sword. In other cases the rings were included in more or less intricate belts.[27] Chronologically, they were used during the early and middle La Tène. The piece from Fântânele imitates the morphology of the tubular rings made of bronze or iron. Quite similar, albeit not identical, rings are known from Palárikovo, in southwestern Slovakia, being dated to La Tène B2,[28] and Manching-Steinbichl, in graves dated to La Tène C1 and C2.[29]

The four brooches found among the grave goods are important elements for the dating. The small iron brooch (no. 8) belongs to the series of finds specific to the end of La Tène B2 and the beginning of the C1 sub-phase in the Carpathian Basin.[30] Similar brooches, sometimes decorated on the sphere and the foot, were made from bronze[31] or iron.[32]

The brooch no. 9 belongs to the series of iron brooches having large dimensions (over 10–15 cm), specific to La Tène C1.[33] Such iron brooches, usually having different types of spheres on the foot, are commonly discovered in a poor state, fragmented and

Fig. 3. Iron brooch with Vegetal Style decoration from grave no. 49 at Fântânele-Dâmbu Popii (photos: A. Rustoiu).

[9] Benadik 1983, 26, no. 1 and Pl. 15/1.

[10] Hellebrandt 1999, 251 and Pl. 77/16.

[11] Almássy 2012, 85, no. 13 and Pl. 22/4.

[12] Rapin 1988, 81 and Fig. 39.

[13] Domaradzki 1977, 85–86.

[14] Lejars 1994, 49–50.

[15] Rapin 1988.

[16] Lejars 1994, 52.

[17] Krämer 1985, 80, 86–88, 96, 114, 121–122 and Pls. 11/8, 21/16, 22/6, 35/10, 59/5, 60/6.

[18] Ratimorská 1981, 35–37 and Pl. 13/8 (grave no. 16); 52 and Pl. 20/4 (grave no. 27).

[19] Bujna 1995, 37–40 and Pl. 15/2 (grave no. 149).

[20] Furmánek, Sankot 1985, 290–291 and Fig. 12/1.

[21] Almássy 2012, 82–84 and Pl. 17/4 (grave no. 11); 84–85 and Pl. 21/2 (grave no. 12); 94–95 and Pl. 33/1 (grave no. 23); 109–111 and Pl. 50/1 (grave no. 39); 134–136 and Pl. 73/4 (grave no. 62).

[22] Todorović 1972, 19, no. 5 and Pls. 12/9, 51/2.

[23] Guštin 1977, Pl. 5/6.

[24] See notes 18–19.

[25] In the Carpathian Basin this type of shield boss is frequently associated with swords of the middle La Tène type, sword-chains having flattened loops decorated with punched dots or circles (known as "gourmettes" in the French literature or "Panzerkette" in the German one) and large iron brooches of the middle La Tène type.

[26] See, for example, Dizdar 2013, 158–159 and Fig. 57, map 15.

[27] See a synthesis of the bibliography about these artefacts in Bujna 2011, 11–14 and Figs. 11–18.

[28] Bujna 2011, 42 and Fig. 25/6–7.

[29] Krämer 1985, 77 and Pl. 3/4–5 (grave no. 10); 80 and Pl. 12/5 (grave no. 21); 81 and Pl. 12/9 (grave no. 23).

[30] Németi 1992, 104, type A13. – Bujna 2003, Fig. 65, type C10–C11.

[31] Bujna 2003, 51–53 and Fig. 13.

[32] Bujna 2003, 72–73 and Figs. 48–49.

[33] Bujna 2003, 81 and Fig. 60/A.

Fig. 4. Objects decorated in the Vegetal Style dated to the La Tène C1 in Transylvania. – 1. Apahida (after Zirra 1976). – 2. Fântânele-Dâmbu Popii (after Rustoiu, Megaw 2011). – 3. Ciumeşti (after Rustoiu, Megaw 2011).

heavily corroded, so a detailed typology is difficult to make.[34]

The brooch from Fântânele stands out among the majority of the finds of this type due to the flattened, decorated foot (Fig. 3). The ornamentation consists of punched figure-of-eight-shaped, curved motifs. In the middle, one pair of motifs forms a lyre, and other motifs are arranged in a row perpendicularly to this central element. The entire decoration was probably enamelled.

Analogies for this vegetal decoration can be found in the same cemetery at Fântânele-Dâmbu Popii. In grave no. 62, without weapons, one iron bracelet was very similarly decorated, including enamelling (Fig. 4/2).[35] The finds from Fântânele, together with other artefacts decorated in the same manner, like the disk of the chain-mail from Ciumeşti[36] (Fig. 4/3) or the beaker from the grave with a helmet from

[34] Németi 1992, 105, type A19.

[35] Rustoiu, Megaw 2011, 229–233 and Figs. 6–7. – J. V. S. Megaw analysed the bracelet from the decorative point of view.

[36] Rusu 1969. – Rustoiu 2008, 14 and Fig. 1/4.

Fig. 5. Iron linchpin from grave no. 49 at Fântânele-Dâmbu Popii (photo: A. Rustoiu).

Apahida (Fig. 4/1),[37] raise some questions regarding the survival of this style in the eastern periphery of the Celtic world until the middle La Tène.

The large iron brooch with large spheres on the foot (no. 10) belongs to a type that was frequently encountered throughout the entire Carpathian Basin.[38] Similar pieces are also known in central Europe, for example in southern Bavaria.[39] They were found not only in female graves, but also in others containing

[37] Zirra 1976. – Rustoiu 2008, 48 and Fig. 17/8.

[38] Bujna 2003, 81, type EF-K-A. – See Popović 1994, 54 and map 1 for the Scordiscian area. – Németi 1992, 105, type A20 etc.

[39] Gebhard 1991, 15–17, type 14.

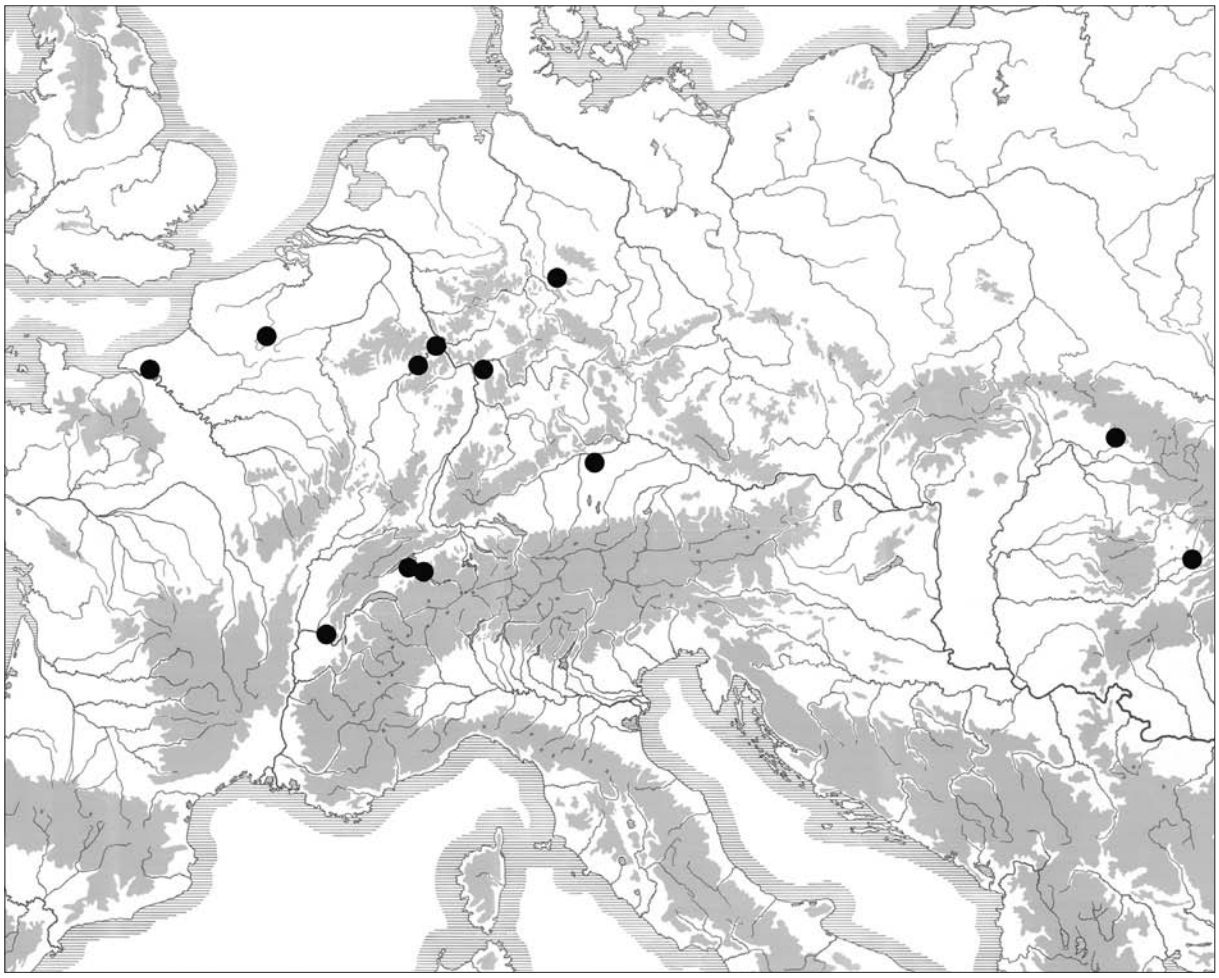

Fig. 6. Distribution map of the linchpins having a crescent-shaped head and a curved stem in the La Tène C–D – (See list 1 after Schönfelder 2002 with additions). – *Italics*: discoveries of the La Tène C, all others of the La Tène D: 1. Bern/Tiefenau (CH). – 2. *Enkirch* (D). – 3. *Fântânele-Dâmbu Popii* (RO). – 4. *Hordain** (F). – 5. *La Tène* (CH). – 6. Mailleraye-sur-Seine (F). – 7. Manching (D). – 8. *Mukačevo/Galliš-Lovačka* (UKR). – 9. *Plaidt* (D). – 10. Rüsselsheim (D). – 11. Sättelstädt (D). – 12. Verna (F). * Ginoux, Leman-Delerive, Severin 2009, 217 and Fig. 7. – The two linchpins from grave no. 4020 have bronze crescent-shaped heads while the end of the iron stem has a bronze knob.

weapons.[40] Chronologically the iron brooches with large spheres on the foot are common in La Tène C1.[41]

Lastly, the small bronze brooch no. 11 is too fragmentary to be classified typologically. It most likely belongs to one of the small variants that are specific to the middle La Tène.[42]

In conclusion, the brooches from grave no. 49 at Fântânele-Dâmbu Popii, as well as the remaining grave goods, date the archaeological context to La Tène C1.

As regards the linchpin with a crescent-shaped head and a curved stem, it belongs to a relatively common type (Fig. 5).[43] Linchpins with this shape appeared during the Early Iron Age.[44] During the Late Iron Age, these are mostly encountered in the middle and late La Tène. Similar linchpins were found from northern France to the Carpathian Basin, but most pieces come from central Europe (the Rhine basin, western Switzerland and southern Bavaria). The linchpin from Fântânele is the easternmost discovery of this kind (Fig. 6). The examples from Mukačevo/Galliš-Lovačka probably belong to the middle La Tène,[45] similarly to the artefact from Fântânele.

The questions raised by the presence of this chariot piece in the grave with weapons from Fântânele concern its function and significance in the middle La Tène context from the eastern part of the Carpathian Basin. These questions will be detailed below.

DISCUSSION

The grave goods play an important role in understanding the symbolic practices that accompany the funerals and their connections with the deceased, the mourners and the community.[46]

In this case, it was possible to infer that the deceased was completely dressed and was cremated together with the panoply of weapons. After cremation, the remains were laid in a compact pile in the southwestern side of the funerary pit. The cremated bones were mixed with clothing accessories (brooches, belt ring) and small pieces detached from the weaponry (shield rivets, tube of the spearhead), which indicate that they were burnt together. The burnt remains were probably collected into a textile sack or a casket made of perishable materials.[47] Above this container was placed the meat offering consisting of large chunks of pig meat and its head.

The larger metal parts of the panoply of arms – the spearhead and the shield boss – were treated differently. These were selected from among the burnt remains and were deliberately laid in a precise position in the opposite side of the pit: the spearhead was placed perpendicularly to the pit wall, while the shield boss was placed longitudinally on top of the spearhead. The linchpin that belonged to a chariot was placed next to them, at a small distance; this object was not burnt on the pyre. The manner in which the weapons and the linchpin were laid into the grave indicates that these artefacts played an important role within the funerary ritual as a means of symbolically expressing the social identity of the deceased.

There are no ceramic vessels in this funerary inventory, in spite of the presence of the meat offering. In this context, it has to be noted that all other graves with weapons from the cemetery in question contain ceramic vessels, usually more than three. Thus, the absence of vessels from this grave is rather unusual.

As regards the panoply of arms, it includes only a spear and a shield, while the sword is missing. Only two of the ten graves with weapons unearthed by I. H. Crişan at La Fântânele-Dâmbu Popii contained the complete panoply of arms (sword, spear, shield), while two others contained a sword; the remaining six included a spear, sometimes accompanied by a shield. Similar situations were noted in other cemeteries, for example at Ludas, where the number of graves containing only spear or javelin heads is quite large: 40 % of the total number of graves with weapons.[48]

These details could indicate a certain social hierarchy expressed through the manner in which the panoply of arms was assembled and then laid in graves. Moreover, in other cemeteries it was noted that only spears were placed in the burials that obviously belonged to the warlike elite. For example, this is the case for the famous grave with a helmet, chain-mail and a pair of Greek greaves found at Ciumeşti.[49]

On the other hand, the diversity of the panoplies of arms, some complete and others consisting of spears or javelins could indicate a specialization within the warrior class based on different styles of fighting within larger military corps.

Lastly, another possibility can also be taken into consideration, which is that the swords were not always placed in graves but were inherited by other individuals. For example, the sword from grave no. 40 at Pişcolt has a scabbard which was decorated in three successive phases, suggesting a long-lasting use,

[40] Other graves with weapons having similar brooches are known from Chotin in Slovakia: Gebhard 1989, 85 and Fig. 27/18.

[41] Gebhard 1989, 85–86, 91–92, 119, dates them to horizon 6 (LT C1a). – Bujna 2003, 106, prefers a dating towards the end of the La Tène C1 (C1c sub-phase).

[42] See the comments in Bujna 2003.

[43] See more on this topic in Schönfelder 2002, 177–181.

[44] Pare 1992, 90–91.

[45] Kobal 1995–1996, 155–156.

[46] Ramsl 2014, 200 and Fig. 18/1.

[47] For the manner in which the cremated remains were collected and laid into the grave, see the hypotheses drawn for the cemetery at Ludas in Hungary by Tankó, Tankó 2012.

[48] Szabó, Tankó, Czajlik 2012, 116 and Fig. 164.

[49] Rustoiu 2008. – Rustoiu 2012.

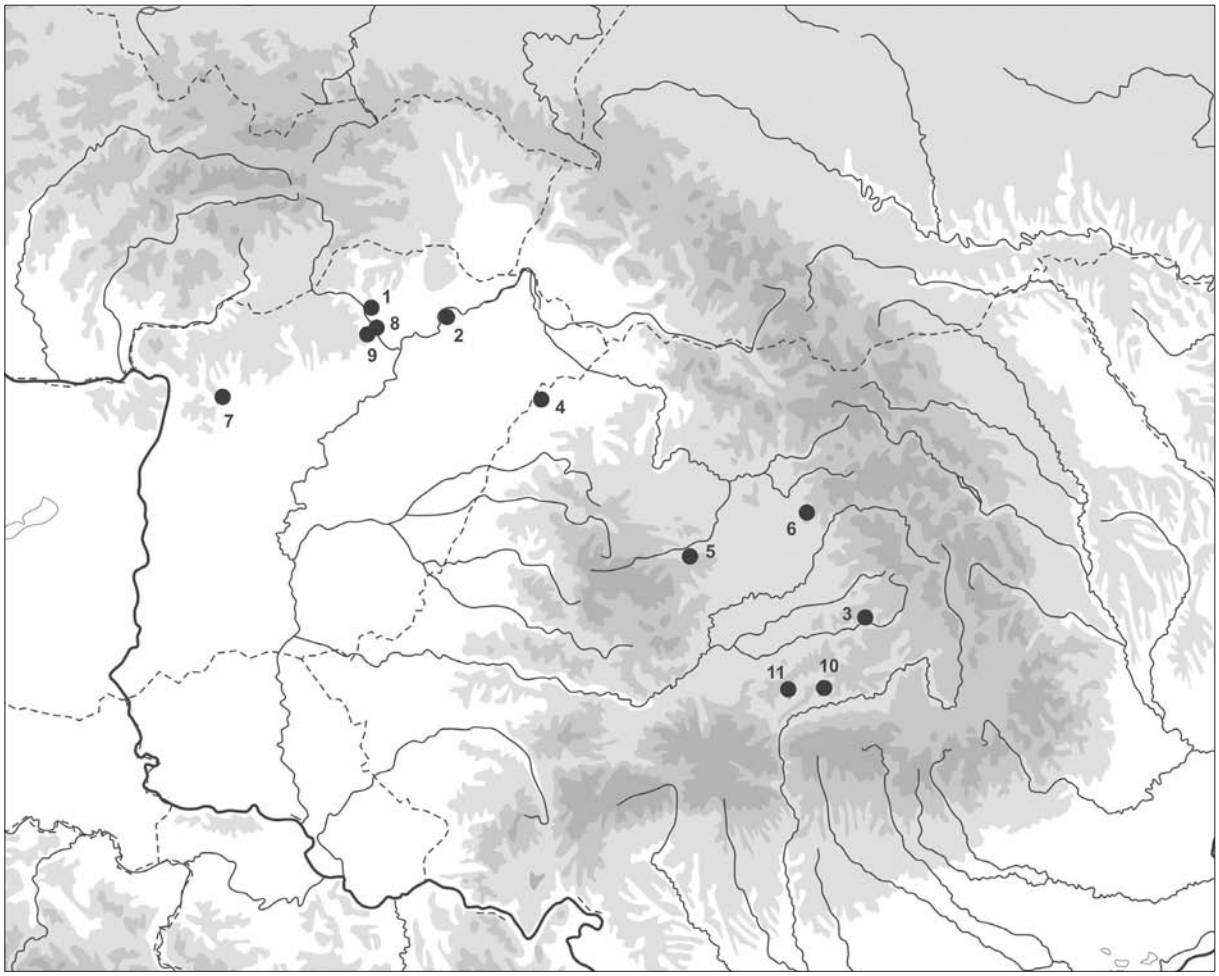

Fig. 7. Distribution map of the graves "with chariots" in the eastern Carpathian Basin (graphics: A. Rustoiu). – See Tab. 1.

perhaps by two or even three generations of warriors, who renewed the magical efficacy of the decorative motif several times.[50]

Returning to grave no. 49 from Fântânele-Dâmbu Popii, the careful placing of the metal parts of the panoply of arms recovered from the pyre into the pit indicates the mourners' intention to express the social status and identity of the deceased through the ostensive displaying of relevant objects.[51] Thus, even if the panoply also contained a sword, the displaying of the spear and the shield could have been considered sufficient to publicly express the desired message. In this context, the linchpin also played an important symbolic role, and even more so, as this is the only chariot piece discovered in the cemetery in question.

Some other graves "with chariots" were found in the eastern Carpathian Basin (Fig. 7, Tab. 1). All of them are cremations and the funerary inventories contain metal parts, more or less complete, of some vehicles with two wheels that accompanied the deceased on the pyre. These metal parts include elements of the frame, body, wheels and yokes. Aside from them, harness fittings were also found, especially horse bits. Two graves "with chariots" were recently identified in the cemetery at Sajópetri, in northeastern Hungary, one of which contains parts of a chariot and the second includes a *pars pro toto* type of deposit, but these are still unpublished and other details are unknown.[52] As regards the remaining funerary inventories that come from graves "with chariots", these usually contain panoplies of arms consisting of a sword, a spear and a shield, or only a sword and a spear, or a sword alone. Chronologically, the graves containing metal parts of a chariot already appeared in La Tène B2, and their placing in burials continued in La Tène C1. It is quite clear that this practice indicates the perpetuation of some older funerary practices originating from the central or western European area in the eastern part of the Celtic world.

Therefore, the graves "with chariots" from the eastern Carpathian Basin contain metal parts of complete vehicles which were either burnt together with the deceased or dismantled and laid into the funerary pit after the cremation. Sometimes they were accompanied by horse harnesses. At the same time, the deceased were buried together with the more

[50] Rapin, Szabó, Vitali 1992, 40–52.

[51] See further in Williams 2003, 10. – Wells 2007, 472–474.

[52] Szabó 2014, 96–101.

No.	Place of discovery	Metal chariot parts of the …	Inventory (only weaponry and pottery)	Dating	Bibliography
1	Arnót (H)	Body, frame, wheels, yoke	Weapons: sword, spear, shield Ceramic vessels	LT C1	Végh 1984, 105–109, fig. 3–4 Schönfelder 2002, 390, No. I/80
2	Balsa (H)	Iron tyres of two wheels	Weapons: sword, spear, shield Ceramic vessels	LT C1	Végh 1984, 105, fig. 2 Schönfelder 2002, 390, No. I/81
3	Cristuru Secuiesc (RO)	Iron tyres, ornamental fittings of the body (?)	Weapons: sword, spear Ceramic vessels	LT C1	Róska 1927–1932 Ferencz 1997 Schönfelder 2002, 389, No. I/74
4	Curtuiuşeni (RO)	Parts of the frame, wheels, harness (2 or 3 horse bits)	Weapons: sword, spear, shield	LT C1	Róska 1944, 57–58, fig. 14 Ferencz 1996 Schönfelder 2002, 389, no. I/76
5	Dezmir	Parts of the frame, harness (2 horse bits)	Weapons: sword, shield Ceramic vessels	LT B2	Crişan 1964
6	Fântânele–Dâmbu Popii (RO)	Linchpin	Weapons: spear, shield	LT C1	
7	Hatvan-Boldog (H)	Iron tyres, harness (2 horse bits)	Weapons: sword Ceramic vessels	LT B2	Végh 1984, 105 Schönfelder 2002, 390, no. I/82 Szabó 2014, 100
8	Sajópetri (H) – grave 2	Chariot parts?	Weapons?	LT B2b	Szabó 2014, 96–101, fig. 13
9	Sajópetri (H) – grave 72	*Pars pro toto?*	Weapons?	?	Szabó 2014, 96–101
10	Toarcla (RO)	Parts of the body, frame, wheels, harness	Weapons: sword Ceramic vessels	LT B2	Horedt 1941–1944 Schönfelder 2002, 389, no. I/77
11	Vurpăr (RO)	Parts of the frame and wheels	?	LT B1/B2	Horedt 1941–1944 Schönfelder 2002, 396, no. II/23

Tab. 1. Burials "with chariot" in the eastern Carpathian Basin (eastern Hungary and Transylvania) (graphics: A. Rustoiu).

or less complete panoplies of arms, which usually contain swords. Taking into consideration these general characteristics of the burials "with chariots" from the area in question, the grave from Fântânele, which contains only a linchpin, stands out due to its particular inventory.

The presence of some structural elements coming from chariots or of horse harness fittings (pairs of horse bits, phalerae) in graves was interpreted as a *pars pro toto* practice.[53] On this problem, M. Schönfelder has noted that the cremation graves of the Late Iron Age usually contain more or less complete sets of metal parts belonging to the body, frame and wheels of the chariots, which were accompanied by linchpins, terrets and harness fittings (pairs of horse bits and phalerae). However, in the case of *pars pro toto* practices only pairs of horse bits or phalerae were placed in graves, and maybe also linchpins.[54]

The use of linchpins as *pars pro toto* was noted for the late Early Iron Age mostly in Bohemia, and rarely in the nearby central European areas. The number of linchpins discovered in graves oscillates between two and four, and even eight. It was noted that in some graves the linchpins were grouped or were arranged in a row along one side of the funerary pit, which indicates that the chariots in question were not made exclusively of wood, having only the linchpins made of metal, and these pieces were deliberately laid in the same place.[55]

Linchpins alone are rarely found in graves of the Late Iron Age.[56] One iron linchpin having a rectangular head and a curved stem comes from a grave dated to La Tène B2 at Wildeshausen (Kr. Oldenburg)[57] in Germany. Another linchpin, probably dated to the end of the middle La Tène, comes from a grave at Abbeville in northern France.[58] Recently, one iron linchpin with an enamelled head was found in a La Tène D1 grave at Waldgirmes, in western Germany.[59] The sole

[53] Joachim 1969, 97–98. – Müller-Karpe 1989, 148–149.

[54] Schönfelder 2002, 311–316 and Tab. 52; Fig. 192.

[55] Pare 1992, 122–123.

[56] Schönfelder 2002, 312–313 and Tab. 52; Fig. 190.

[57] Nortmann 1983, 71–72, 193 and Pl. 13/15. – Schönfelder 2002, 170, 313 and Tab. 18/3.

[58] Schönfelder 2002, 312 and Tab. 52. – Ginoux, Leman-Delerive, Severin 2009, 213, 219 and Tab. 1.

[59] Rasbach 2010–2011, 145–146 and Fig. 12/26.

example from eastern Europe is the linchpin from Fântânele.[60]

Thus, the placing of linchpins alone in graves of the Late Iron Age is a less common practice. The question is whether they reflect the deliberate and systematic use of *pars pro toto*, as seems to happen in the more frequent cases in which harness fittings were offered, or whether these artefacts were used in other rituals.

Even from their first appearance during prehistory, chariots played an important symbolic role, irrespective of their primary use as means of transportation, battle or ceremonial vehicles. This importance is reflected by their being placed in graves within different communities, numerous figurative depictions (including those on Mediterranean or Celtic coins), ancient writings or Irish and Norse literature of the early medieval period[61] etc. The chariots, as well as the weapons of the warriors, were seen as symbols of their owners' social status. At the same time, they were also involved in religious or magical practices and this could be one reason why some parts were invested with symbolic meanings. One example is the wheel, which is commonly rendered in the figurative art, often in association with various divinities. Furthermore, there are numerous miniature chariot models made of metal all over Europe.[62]

From this perspective, the linchpins were also invested with certain symbolic meanings, probably resulting from their practical function – to hold the wheel in place on the axle. In the magical domain, the linchpin could have been seen as a means of "closing" ("holding") or, on the contrary, "opening" or "liberating" the wheel as a moving part. As a consequence, the linchpin would more likely be associated with the symbolism of the wheel than with that of the entire chariot.

The symbolic importance of the linchpins is also reflected by their frequent ornamentation. One chariot model made of bronze and dated to the Early Iron Age ("Kesselwagen" type), discovered in a grave belonging to the Basarabi culture at Bujoru, in southern Romania, provides a relevant example (Fig. 8). The chariot

Fig. 8. Bronze model of a chariot from Bujoru (after Vulpe 2000–2001).

is decorated with bird-shaped protomes and the linchpins also resemble aquatic birds,[63] which points to the symbolical importance of these chariot parts.

Linchpins decorated in various styles are well documented during the Late Iron Age. For example, one iron linchpin with a bronze head, which was discovered at Unterradlberg in Lower Austria and was dated to the early La Tène, is decorated with an anthropomorphic mask framed by a pair of birds of prey facing each other (Fig. 9/1). The birds have an S-shape and together resemble a lyre, similarly to the pairs of dragons or griffins that decorate the scabbards of the La Tène swords.[64] Other iron linchpins with bronze heads with an anthropomorphic rendering reappeared during the *oppida* period. Among them, one piece from Urach (probably a votive offering in water) can be mentioned [65] (Fig. 9/2) and another from the *oppidum* at Donnersberg (Fig. 9/3).[66] Linchpins with zoomorphic or geometric decoration appeared during the same period, for example at Manching (decorated with owl heads – Fig. 9/4),[67] Berching-Pollanten, Basel/Gasfabrik, Stradonice[68] etc.

Other types of linchpins used during La Tène B2–C1 were also decorated with intricate motifs

[60] The two linchpins having spectacle-shaped heads from Belgrade-Karaburma (Cf. Schönfelder 2002, 172, 175, 387 and Fig. 103/8–9; Tab. 19/11; Cat. I/68) were accidentally discovered in the area occupied by the La Tène cemetery and their possible belonging to a burial or the association with other chariot parts are uncertain (Todorović 1968, 147 and Pl. 33/11. – Todorović 1971, 161, no. 671–672 and Pl. 73/2–3; 96/81). Since they were not discovered during the excavations in the cemetery, the linchpins were not included into the monograph published by Todorović 1972. As a consequence, the finds from Belgrade-Karaburma cannot be included in the list of graves that contained only linchpins in their inventory.

[61] Harbison 1969, 45–55. – Pare 1992, 177–216. – Raulwing 2000, 37–59. – Schönfelder 2002, 283–299.

[62] For the association of the wheel with the sun and the solar divinities during the Iron Age and later see Green 1992, 225–226. – For the miniature wheels and their multiple functions, see Kiernan 2009, 11–39.

[63] Moscalu, Beda 1988. – Pare 1992, 181 and Fig. 126. – Vulpe 2000–2001, 44–45 and Fig. 28.

[64] Megaw, Megaw, Neugebauer 1989, 506–510 and Figs. 14, 15/1.

[65] Megaw 1970, 105, no. 150. – Schönfelder 2002, 184–185 and Tab. 25/8; Fig. 112/7.

[66] Polenz 1974. – Schönfelder 2002, 184–185 and Tab. 25/2; Fig. 112/3. – The head of this linchpin shows a human head having a crescent-shaped ornament on top. This element probably suggests in a hyperbolised manner the haircut of the character rendered on the linchpin. This haircut resembles the one depicted on the human head made of stone from Mšecké Žehrovice, which is considered to be specific to the druids: Venclová 2002, 77–79.

[67] Krämer, Schubert 1979. – van Endert 1991, 52–53 and Pl. 11.

[68] Schönfelder 2002, 184–185 and Tab. 25; Fig. 112, with previous bibliography.

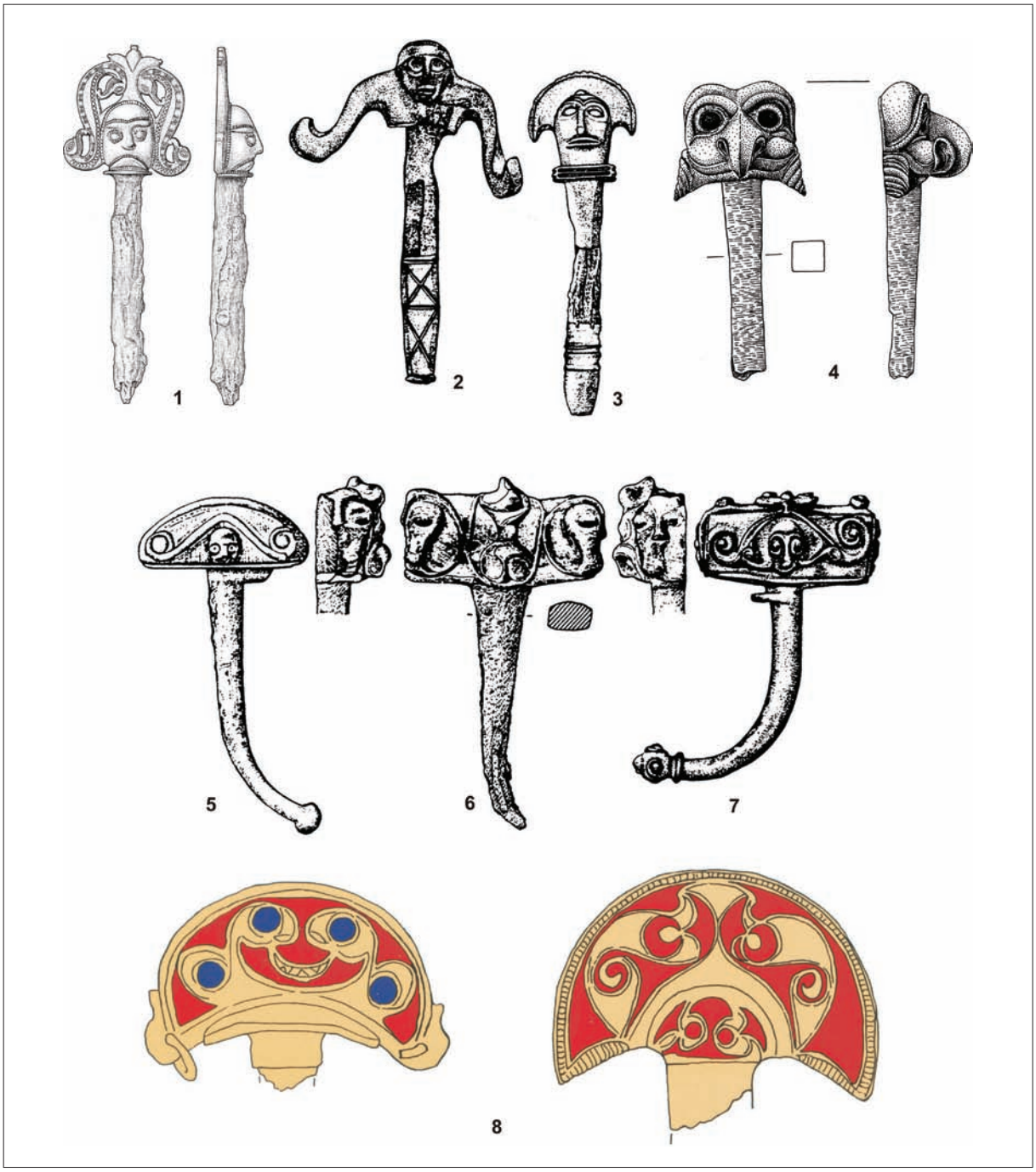

Fig. 9. Decorated linchpins. – 1. Unterradlberg (after Megaw, Megaw, Neugebauer 1989). – 2. Urach. – 3. Donnersberg (after Krämer, Schubert 1979). – 4. Manching (after van Endert 1991). – 5. Grossdraxdorf. – 6. Urach. – 7. Niederweis (after Krämer, Schubert 1979). – 8. Colne Fen (after Foster 2014).

(Fig. 9/5–7). For instance, some pieces with a rectangular or semicircular head were richly decorated in the Vegetal or Plastic Style. Among these, one example from the British Museum, the famous bronze linchpins from Mezek in Bulgaria (Fig. 10), or those from Grossdraxdorf, Urach, Niederweis, La Courte[69] etc. in western Europe can be mentioned. Other iron linchpins were decorated with enamelled geometric motifs, for example those found at Condé-sur-Marne, Waldalgesheim, Nanterre or Brezice.[70] Enamelled ornaments are also encountered on a series of linchpins with a crescent-shaped head and a straight stem, like the piece from the fortress on Mont Kemmel, in Flanders,[71] or those from Colne Fen, in Britain (Fig. 9/8).[72]

[69] Megaw 1970, 105, no. 149. – Krämer, Schubert 1979, 373–375 and Fig. 3/1–8. – Megaw, Megaw 1995. – Emilov, Megaw 2012.

[70] Schönfelder 2002, 168–172 and Tab. 18; Fig. 102, with previous bibliography.

[71] van Doorselaer 1999, 102 and Fig. 10/4.

[72] Foster 2014, 63–64 and Fig. 6.6/22–23.

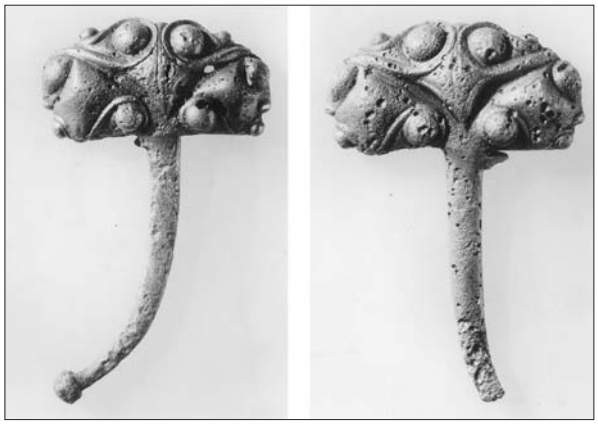

Fig. 10. Linchpins from Mezek, Bulgaria (photo: Rosa Staneva, National Institute of Archaeology with Museum, Sofia).

Lastly, it also has to be noted that the crescent-shaped head of some linchpins with a curved or straight stem also had symbolic meanings. For example, such astral symbols were incised or punched on the blade of some short swords or daggers with anthropomorphic hilts, and occasionally also on spearheads, which might have been used as sacrificial instruments in temperate Europe from the 3rd until the 1st century BC.[73]

In conclusion, the linchpin placed in grave no. 49 from Fântânele-Dâmbu Popii after the cremation of the deceased could indicate the presence of the *pars pro toto* practice. However, the use of linchpins for this kind of ritual is rarely encountered during the Late Iron Age. As a consequence, also taking into consideration the symbolic meaning of the linchpins, the placing of this object into the grave might more likely indicate certain magical practices which were performed during the funerals in connection with the rites of passage. The association of the linchpin with the wheel may also suggest a connection with the symbolism of the chariot as a psychopomp vehicle. These suggestions and interpretations are rather speculative, but it is quite clear that the linchpin in question played an important role during the funeral due to its association with the weaponry, the most important element that defined the social identity of the deceased.

CONCLUSIONS

The cremation grave no. 49 from the La Tène cemetery at Fântânele-Dâmbu Popii belonged to a warrior, given the weaponry included in the funerary inventory. Both the weapons and most of the brooches date the grave to La Tène C1. The ritual practices performed during the funerals, as well as a series of objects from the inventory, played an important symbolic role in expressing the social identity of the deceased.

Among the brooches is a middle La Tène one decorated on the foot with a punched ornament in the Vegetal Style. The presence of some objects decorated in this manner in the eastern Carpathian Basin (including a bracelet from the same cemetery at Fântânele, which was comprehensively analysed by Vincent Megaw[74]) indicates that this decorative style, as well as the symbolic message that is suggested through it, survived over a longer period on the eastern fringes of the Celtic world. The examples are less numerous, but those that were identified suggest that such cultural heritage played an important role in the remembrance of some ancient traditions from the original homeland of the first colonists who came to the eastern Carpathian Basin.[75]

During the funerary ceremony, particular attention was paid to the metal parts of the weapons that survived cremation. The spearhead and the shield boss were selected from among the burnt remains and were carefully laid in the pit, thus indicating the mourners' intention to reiterate the importance of the symbolic elements that defined the social status of the deceased. The placing next to the weapons of a linchpin that came from a chariot which was not burnt with the deceased on the pyre can be interpreted in the same way.

In conclusion, given that a series of graves "with chariots" containing several parts were documented in the eastern Carpathian Basin during La Tène B2–C1, the presence of a single linchpin could indicate the practising of a *pars pro toto* ritual. During the Early Iron Age the use of such objects as *pars pro toto* is documented mostly in Bohemia, but in the Late Iron Age the presence of linchpins alone is scarce. Thus, taking into consideration the symbolic role played by the linchpins as parts of the chariots, it might be presumed that the placing of such objects in graves could more likely illustrate certain magical practices performed during the funerals as part of the rites of passage.

It can therefore be concluded that the grave from Fântânele-Dâmbu Popii opens up a series of fresh perspectives regarding the interpretation of some funerary inventories and their symbolic meanings both within the cemetery in question and in others from the eastern Carpathian Basin.

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[73] Fitzpatrick 1996. – Megaw 2002.

[74] Rustoiu, Megaw 2011, 229–233.

[75] For the Celtic "colonization" of the Carpathian Basin, see Rustoiu 2014b.

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WEAPONRY IN LA TÈNE CULTURE BURIALS IN POLAND AND SOME COMMENTS ON THE CELTIC SWORD FROM RZESZÓW

PIOTR KIECA

Abstract: The aim of this paper is a new comprehensive study on weapons discovered in Celtic graves in Poland. The largest number of warrior graves is known from La Tène Culture cemeteries in Lower Silesia, mostly from Sobocisko and Głownin, but also from Karncza Góra and Wiązów. Two further graves with weaponry were discovered in Upper Silesia, in the cemetery of Kietrz. From Lesser Poland, two warrior burials come from the graveyard at Iwanowice and single burials from Aleksandrowice and Kraków-Witkowice. From this region weapon finds originating from two "alleged" graves from Krakow-Pleszów and Krakow-Wyciąże are also known. Some comments and remarks on the find of a Celtic sword discovered in the River Wisłok in Rzeszów in Podkarpacie will be given as well. The paper summarizes also the old typological studies and compares them with more recent typologies of the La Tène Culture weapons. A new look at the source material has corrected the earlier interpretation and re-interpreted some of the finds. A detailed new chronology of burials with weapons is also proposed. The study on Celtic burials with weapons confirms very broad contacts between the La Tène Culture groups in Poland.

Keywords: La Tène Culture, graves, weapon, sword, Poland, Rzeszów

There are eleven archaeological sites in the area of today's Poland connected with the settlement of La Tène Culture where graves with military equipment were found (Fig. 1). The La Tène Culture settlement concentrated in four regions of southern Poland: Lower and Upper Silesia, Lesser Poland and Podkarpacie (Subcarpathian Province).[1] The weapons finds were discovered in 17 inhumation graves, five cremation graves, two "alleged" graves, as well as from just one context other than a grave: from the bottom of the river.

The largest concentration of warrior graves of the La Tène Culture in Poland is known from Lower Silesia. Ten inhumation burials with weapons were discovered in the cemetery of Sobocisko (Oława County).[2] Another four graves come from the bi-ritual

[1] See Woźniak 1970. – Woźniak 1979. – Woźniak 1992, 9–17. – Ginalski, Muzyczuk 1999. – Czopek 2002. – Woźniak 2004. – Bochnak 2006. – Bochnak 2007. – Karwowski 2007. – Karwowski 2008. – Dulęba 2009.

[2] Graves nos. 1–2/1891, 3/1900, 5/1908, 8/1940, 9/1940, 24/1940, 26/1940, 1/1952, 3a/1955, x/1965. – Jahn 1931, 114–116 and Fig. 7/2, 4–7. – Hoffmann 1940, 12–18, 21–22 and Figs. 3, 5, 8/1–12, 12/1–6, 10–13. – Czerska 1966, 90, 96 and Figs. 4, 16. – Woźniak 1970, 57–59, 287–290 and Figs. VIII/1–12, IX/6–11, 14. – Unpublished author's archive.

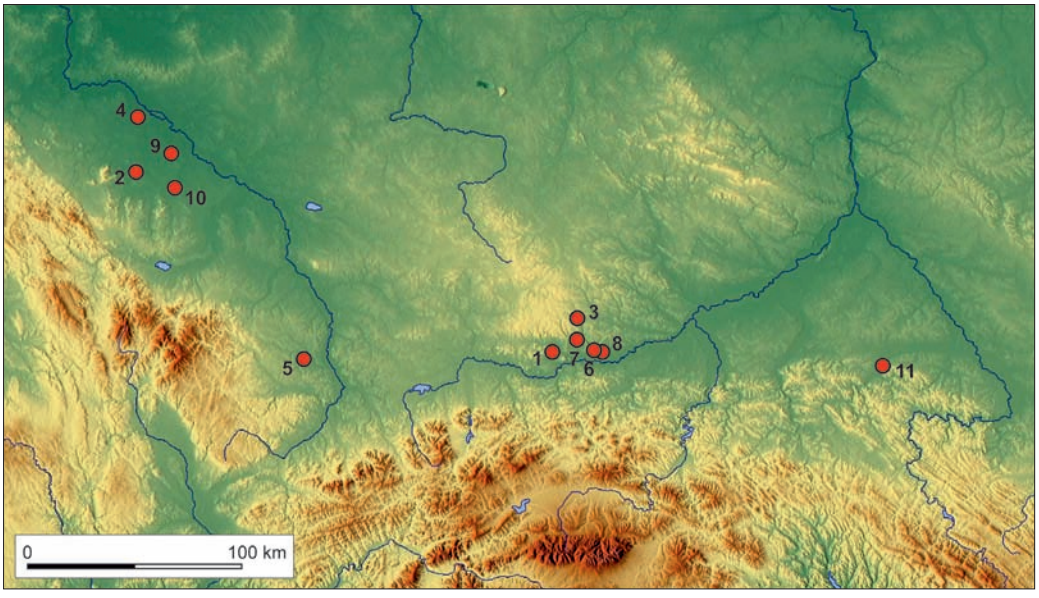

Fig. 1. Finds of weapons related to Celtic settlements in Poland. – 1. Aleksandrowice, Kraków County. – 2. Głownin, Strzelin County. – 3. Iwanowice, Kraków County. – 4. Karncza Góra, Wrocław County. – 5. Kietrz, Głubczyce County. – 6. Kraków-Pleszów, Kraków County. – 7. Kraków-Witkowice, Kraków County. – 8. Kraków-Wyciąże, Kraków County. – 9. Sobocisko, Oława County. – 10. Wiązów, Strzelin County. – 11. Wisłok/Rzeszów, Rzeszów City county (map groundwork: Free Software Foundation).

cemetery in Głownin (Strzelin County). On this site weapons were found in one cremation burial and in three inhumation graves.[3] One inhumation grave of a warrior was found in the cemetery in Karncza Góra (at present Gmina Kąty Wrocławskie, Wrocław County).[4] There is also another, single inhumation grave of a warrior from the region, discovered in Wiązów (Strzelin County).[5]

In Upper Silesia, the only cemetery with just two inhumation warrior graves was discovered in Kietrz (Głubczyce County).[6]

Four cremation burials with weapons were discovered in Lesser Poland (all of them in Krakow County). Two graves came from the cemetery in Iwanowice[7] and single graves have been discovered in Aleksandrowice[8] and in Krakow-Witkowice.[9] From this region two "alleged" burials are also known: from Krakow-Pleszów and Krakow-Wyciąże.[10]

In Podkarpacie, just a single find of a sword, which may be associated with the La Tène Culture, was found at the bottom of the Wisłok River in Rzeszów (Rzeszów City County).[11] This weapon did not come from a grave, but is directly related to the La Tène Culture from southeastern Poland.

The weaponry artefacts discovered on the areas of the La Tène Culture settlement in Poland include 22 swords and 18 scabbards, 24 spearheads, five spear butt caps, 22 rings from sword-belts and seven chain belts, six shield bosses, three bar grips and other metal elements of shields found in 10 graves. The general chronology of these artefacts stays within the range of the later phase of the early (LT B) and of the middle (LT C) La Tène periods.

SWORDS

To the most numerous and most important group of weaponry artefacts of the La Tène Culture in Poland belong swords (Tab. 1). Most of these swords are examples dated to the early La Tène period with characteristics such as a blade tapering to a point and a prominent and sharp midrib. The total length of these items ranges between 62.2 cm (Sobocisko, grave 7/1940) and 77.5 cm (Rzeszów). The width of the blades starts from 3.3 cm (Sobocisko, grave 1/1952) and goes up to 5.6 cm (Sobocisko, grave 3a/1955). The diamond cross-section is accompanied by a prominent midrib extending from the tang to the tip. Unfortunately, the handles of some swords are broken, so the sword's length cannot be precisely determined. Several specimens have rivets which originally bonded organic construction elements of a hilt. The sword from Rzeszow is the only early La Tène specimen with a well-preserved 1 cm-long bell-shaped cross-guard.

Other swords are characteristic for the middle La Tène period with such elements as a rounded point and a barely discernible midrib. Some specimens show a distinct bell-shaped transition from the blade to the hilt (two swords from grave 2–3/1904 in Głownin). The total length of these swords ranges between 60 cm (Iwanowice, grave 34) and 90 cm (Aleksandrowice), and the width of the blades from 4 cm (Głownin, grave 1–2/1904) to 5.2 cm (Iwanowice, grave 34). The cross sections of the blades are varied. The examined objects have diamond cross sections with a hardly discernible midrib (Iwanowice, grave 34), as well as lenticular cross sections (Aleksandrowice and Głownin, graves 2–3/1904). The hilt of the sword from grave 9/1940 from Sobocisko has rivets used to bond the organic lining of a hilt. The point shape of a sword from Aleksandrowice suggests that it was damaged and later repaired.

Unfortunately, only little can be said about the swords discovered in graves 3/1900 and 5/1908 in Sobocisko, grave 4/1927 in Głownin, the grave in Wiązów and in "alleged" graves from Krakow-Pleszów and Krakow-Wyciąże. A fragment of a sword from grave 3/1900 in Sobocisko is preserved in its scabbard and has an almost flat blade with a length of 22 cm and a width of 5 cm. Another fragment from grave 5/1908 at the same cemetery is now missing. A fragment of a sword from grave 4/1927 in Głownin has been preserved in its scabbard and has a length of 25 cm. For the sword from Krakow-Pleszów, the top of the blade with a width of 5 cm has been preserved, together with the handle, the blade with a diamond cross section and rib. The sword from Krakow-Wyciąże was preserved in the upper part of the blade, also amounting to 5 cm in width, together with the 15 cm-long handle. The inventory of the grave in Wiązów has not been published yet, however A. Kosicki suggests dating this complex to phase LT B1.[12]

[3] Graves nos. 2–3/1904 (cremation), 4/1927, 1/1930, 6/1930. – Jahn 1931, 50–51, 110 and Fig. 45. – Jahn 1934, 120, 123–124 and Figs. 15, 19, 21. – Woźniak 1970, 282–283 and Figs. XII/2, XIII, XV/1–4.

[4] Grave no. I. – Jahn 1931, 15 and Fig. 6/3. – Woźniak 1970, 284 and Fig. 1/1.

[5] For general remarks, see Kosicki 1996, 276. – The documentation of this complex is being still studied and is currently not available.

[6] Graves nos. 1699 and 1701. – Gedl 1978, 36, 39 and Figs. VI/1, VIII/1.

[7] Graves nos. 9 and 34. – Rosen-Przeworska 1946–1947, 182–183, 186 and Figs. 3/1–2; 4–5, 7, 9, 10/1–3; 11–14. – Woźniak 1970, 107–109 and Figs. XXIX, XXX, XXXI/1–5. – Woźniak 1991, 378.

[8] Grave without number. – Naglik 2001, 318. – Bochnak 2005. – Bochnak 2006a, 167 and Figs. 7–8.

[9] Grave without number. – Woźniak 1970, 327 and Fig. XLVII/1. – Bochnak 2005, 157.

[10] "Alleged" graves without numbers. – Poleska 1996, 213, 216. – Poleska 2006, 159–160 and Fig. 22/1–3.

[11] Accidental discovery in 1957. – Kunysz 1962. – Woźniak 1970, 341. – Łuczkiewicz 1997. — Bochnak 2005, 43. – Bochnak 2006b. – Łuczkiewicz 2006, 46.

[12] Kosicki 1996, 276.

Locality	Grave	Total length	Handle length	Blade width	Notes	Dating	Literature
Aleksandrowice		90	11	4.2	repaired blade	C2	Bochnak 2006, 167 and Fig. 8/7–7a
Głownin	2-3 /1904	81	11	4		C1	Jahn 1931, 50–51 and Fig. 45/2, 3–3a
	2-3 /1904	81	11	4		C1	Jahn 1931, 50–51 and Fig. 45/3–3a
	4 /1927	c. 25			broken	B2/C1	Jahn 1934, 120–122
	1 /1930	65	1	5	broken handle	B2/C1	Jahn 1934, 120–122 and Fig. 15/3
	6 /1930	56.8		4.8		B2/C1	Jahn 1931, 123–124 and Fig. 21
Iwanowice	9	72.5	11.8	4.7		C1b	Rosen-Przeworska 1946–1947, 182–183 and Fig. 9
	34	60	11	5.2		C1b	Rosen-Przeworska 1946–1947, 186 and Fig. 3/1
Kietrz	1699	67		5	broken handle	B2a	Gedl 1978, 36 and Fig. VI/1
	1701	73	12	4.4		B2a	Gedl 1978, 39 and Fig. VIII/1
Kraków-Pleszów				5	fragment	B2/C1a	Poleska 2006, 159–160 and Fig. 22/2
Kraków-Wyciąże			15	5	fragment	B/C	Poleska 2006, 159–160 and Fig. 22,1
Rzeszów		77.5	12	5.4	bell-shaped cross-guard	C1a	Kunysz 1962, 86–87 and Figs. 1–3
Sobocisko	3 /1900	22		5	broken	B2a/b	Jahn 1931, 114–116 and Fig. 7/5
	5/1908	n	n	n	missing	B2	Jahn 1931, 114–116
	7 /1940	62.5	10.4	5.3		B2a	Hoffmann 1940, 12–13 and Fig. 3/1
	8/ 1940	62.3	9	5.5 cm	in scabbard	B2a	Hoffmann 1940, 13–14 and Fig. 8/1
	9/ 1940	68	13	5.5 cm	in scabbard	B2b	Hoffmann 1940, 15–16 and Fig. 8/11
	24/ 1940	63.5	6	6 cm	in scabbard; broken handle	B2a	Hoffmann 1940, 17–18 and Fig. 12/7
	26/ 1940	68	8	5.3		B1b/B2a	Hoffmann 1940, 21–22 and Fig. 12/1
	1/ 1952	63.2		3.3	broken handle	B2b	Czerska 1966, 90 and Fig. 4/n
	3a/ 1955	70.5	5	5.6	broken handle	B2a	Czerska 1966, 96 and Fig. 16/a
Wiązów						B1	Kosicki 1996, 273–279

Tab. 1. Celtic double-edged swords from the La Tène Culture sites in Poland.

SWORD SCABBARDS

One of the inseparable elements of the Celtic sword is a metal scabbard. From Poland, 18 such artefacts of La Tène Culture origin are known (Tab. 2). Only eight of them have well-preserved chapes (Fig. 2). Four are heart-shaped (graves nos. 8/1940, 3a/1940 in Sobocisko, grave no. 1/1930 in Głownin and grave no. 1701 in Kietrz,); they correspond to the type Iα in the typological system of J. M. de Navarro[13] and chapes of group 1 in the typology of finds from Gournay-sur-Aronde in northern France.[14] Two of them are V-shaped (graves nos. 24/1940 and 26/1930 in Sobocisko); they correspond to type BII or BI by de Navarro, or group 2 or 3 of sword scabbard chapes from Gournay-sur-Aronde. While the chape found in grave no. 9/1940 in Sobocisko is particularly wide, the poor state of preservation of this piece makes it impossible to accurately determine its type.

An interesting chape was found in the sword scabbard in grave no. 6/1930 in Głownin (Fig. 2/B). On the picture showing this scabbard,[15] the back side of the artefact with a clearly visible suspension-loop and a back side of the chape is presented. As can be seen, this artefact was very short (the height of the chape from the sword point was only 4.5 cm), but at the same time very solid. It comprised of two rounded plates (1.5 × 2 cm) placed on both sides of the scabbard and bonded by a rectangular strip. Yet, there is no information about the front side of that chape. Currently, there seems to be no sword dated to the LT B or LT C1 period with a similar chape. Similar chapes were particular to scabbards from later periods, e.g. the ones found in La Tène in Switzerland.[16] Unfortunately, the remaining chapes cannot be analyzed due to serious damage.

All sword scabbards from Poland have a preserved bell-shaped mouth (see Tab. 2) conforming to type A2

[13] de Navarro 1972, 21–33.

[14] Lejars 1994, 17–38.

[15] Jahn 1934, 124 and Fig. 21.

[16] de Navarro 1972, Pls. XXVII, XCIV.

Locality	Grave	Scabbard mouth type		Chape type		Suspension-loop type		Literature
		de Navarro 1972	Lejars 1994	de Navarro 1972	Lejars 1994	de Navarro 1972	Lejars 1994	
Aleksandrowice		A2	group 4	–	–	unusual shape	unusual shape	Bochnak 2006, 167 and Fig. 8/5-6
Głownin	4/1927	–	–	–	–	–	–	Jahn 1934, 120–122
	1/1930	A2	group 2	Iα	group 1	–	–	Jahn 1934, 120–122 and Fig. 15/3
	6/1930	A2	group 4?	unusual shape	unusual shape	–	type 8	Jahn 1931, 123–124 and Fig. 21
Iwanowice	9	A2	group 2	–	–	unusual shape	unusual shape	Rosen-Przeworska 1946–1947, 186 and Figs. 9, 10/1
	34	A2	group 4	–	–	–	type 5	Rosen-Przeworska 1946–1947, 183 and Fig. 4/2
Kietrz	1699	A2	group 2	–	–	IA	type 3	Gedl 1978, 36 and Fig. VI/2
	1701	A2	group 2	Iα	group 1	–	–	Gedl 1978, 39 and Fig. VIII/2
Sobocisko	3/1900	–	–	–	–	–	–	Jahn 1931, 114–116 and Fig. 7/5
	5/1908	–	–	–	–	–	–	Jahn 1931, 114–116
	7/1940	A2	group 1	–	–	–	–	Hoffmann 1940, 12–13 and Fig. 3/1-1a
	8/1940,	A2	group 1	Iα	group 1	IA	type 3	Hoffmann 1940, 13–14 and Fig. 8/1-1a
	9/1940	–	–	–	–	–	–	Hoffmann 1940, 15–16 and Fig. 8/11
	24/1940	A2	group 1	BII or BI	group 2 or 3	–	–	Hoffmann 1940, 17–18 and Fig. 1
	26/1940	A2	group 1	BII or BI	group 2 or 3	–	–	Hoffmann 1940, 21–22 and Fig. 12/1
	1/1952	A2	group 2	–	–	–	–	Czerska 1966, 90 and Fig. 4/n
	3a/1955	A2	group 2	Iα	group 1	–	–	Czerska 1966, 96 and Fig. 16/a
Rzeszów		A3	group 1	unusual shape	unusual shape	–	type 4	Kunysz 1962
Wiązów		–	–	–	–	–	–	Kosicki 1996, 273–279

Tab. 2. Celtic sword scabbards from the La Tène Culture sites in Poland.

in de Navarro's classification.[17] However, they can be divided into three groups corresponding to types 1, 2 and 4 in the division of sword scabbard mouths from Gournay-sur-Aronde.[18] According to my typological proposition, group 1: bell-shaped normal, is akin to type 1 GSA; group 2: bell-shaped low, is akin to type 2 GSA; group 3: bell-shaped high, is akin to type 4 GSA. The bell-shaped mouth groups 1 and 2 include mainly scabbards from Silesian cemeteries but also one from Lesser Poland. Group 3 bell-shaped mouths include younger artefacts from Iwanowice, Aleksandrowice and probably from Głownin.

It appears that one of the most fragile elements of a scabbard is the suspension-loop (see Tab. 2). Well-preserved suspension-loops were found in only six scabbards (Fig. 3). In two cases they represent the so-called simple type of suspension-loop

[17] de Navarro 1972, 23 and Fig. 3.

[18] Lejars 1994, 31.

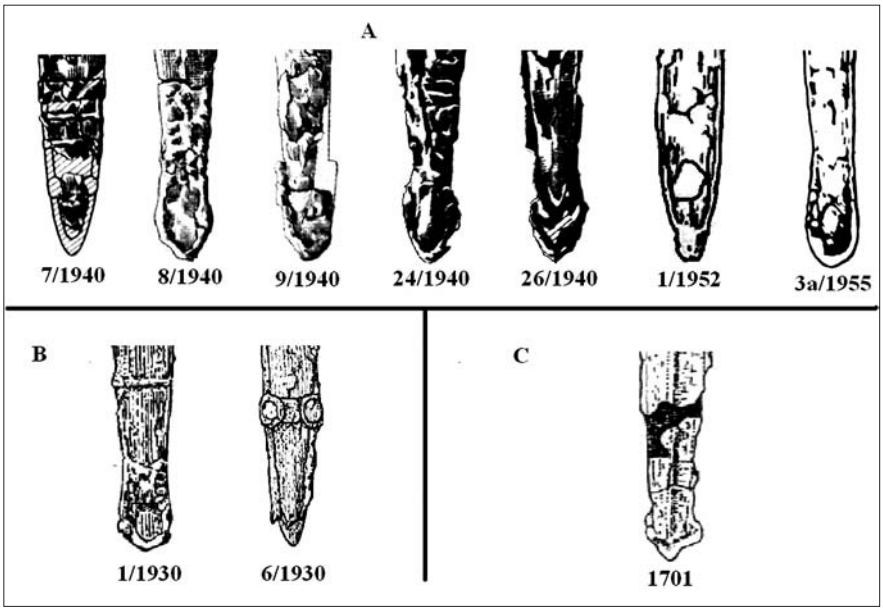

Fig. 2. Chapes of sword scabbards. – A: Sobocisko. – B: Głownin. – C: Kietrz (after Jahn 1934. – Hoffmann 1940. – Czerska 1966. – Gedl 1978).

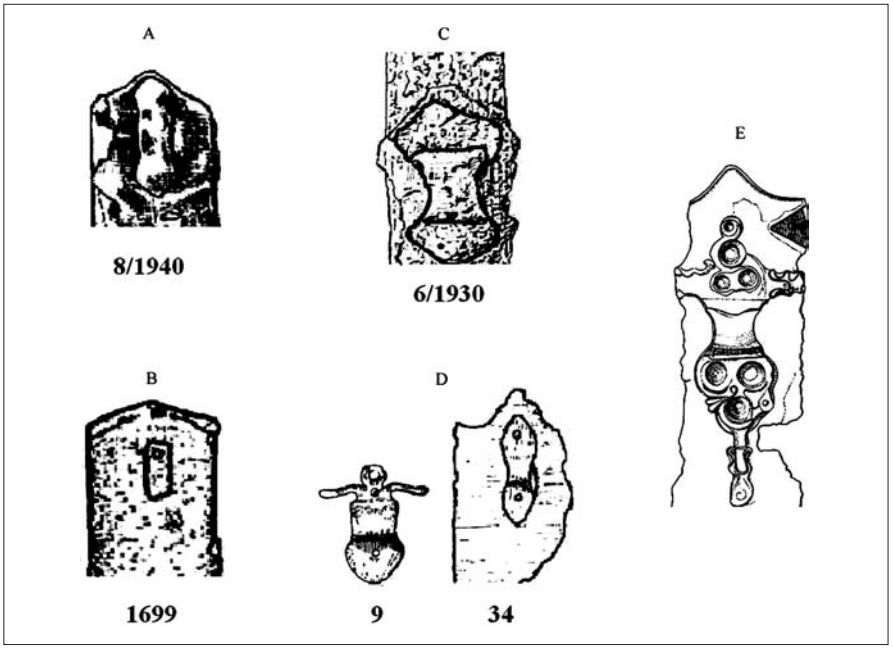

Fig. 3. Chapes of sword scabbards. – A: Sobocisko. – B: Głownin. – C: Kietrz (after Jahn 1934. – Hoffmann 1940. – Czerska 1966. – Gedl 1978).

corresponding to type IA in de Navarro's classification:[19] the first one originates from Sobocisko, grave no. 8/1940; the second one, from the cemetery in Kietrz, grave no. 1699 (Fig. 3/A, B).

Another scabbard with a preserved suspension-loop is the item from grave no. 34 in Iwanowice (Fig. 3/D).[20] This suspension-loop is a specimen with a brief heart-formed plate. This corresponds to type 5 of sword scabbards from Gournay-sur-Aronde.[21] Artefacts with similarly shaped suspension-loops have been classified as type II by T. Bochnak in the classification of sword scabbards from the Przeworsk Culture.[22]

A very interesting carrying ring was found in the scabbard from grave no. 6/1930 in Głownin

[19] de Navarro 1972, 37 and Fig. 8/1. – Cf. also Woźniak 1970, 59. – Woźniak 1979, 213.

[20] Rosen-Przeworska 1946–1947, Fig. 4.

[21] Lejars 1994, 27.

[22] Bochnak 2005, 38, 43–44.

(Fig. 3/C).[23] This suspension-loop has oval plates for the rivets and a square loop with arched edges narrowing to the middle. It is similar to type 8 from Gournay-sur-Aronde.[24] The closest analogy is an artefact from grave no. 31 from the cemetery of Malé Kosihy in southwestern Slovakia.[25]

The suspension-loops found on scabbards in grave no. 9 in Iwanowice and in Aleksandrowice are very particular, characterized by expanded upper plates (Fig. 3/D, E). The item from Iwanowice has a lower plate in a heart shape, a rectangular loop and an upper plate in the form of two side arms (extending only over part of the scabbard) with a small disc above them.[26] As for its shape, a similar specimen was found in Balassagyarmat in Hungary.[27] However, the carrying ring arms are here bonded with the strip reinforcing the scabbard throat. Thus, they are longer than the ones on the scabbard from Iwanowice, where the carrying ring arms do not extend to the whole width of the scabbard. This example of the upper plate is very rare – it may be comparable to the suspension-loop of the scabbard from Halmajugra in Hungary.[28] Another suspension-loop where the arms do not extend to the throat of the scabbard was seen on the sword scabbard from Obrenovac-Ušće in northern Serbia.[29]

Consequently, the specimen from Aleksandrowice proves to be an interesting example of a carrying suspension-loop, unique for the whole of Poland. On its extended mounting plates was an ornament in the form of openwork circles. Three such circles are found on the lower plate and form a pattern of a triangle with the tip pointing downward. Between the circles appears probably a plastic half-palmette ornament. On the top plate we can see four extensive circles; three smaller ones create a triangle with the tip directed upwards, and a large circle is placed in the middle. The edges of the arms on the top plate are also decorated with the engraved arcs ornament. A sword from the cremation grave from Dobova in Slovenia had openwork decoration on the suspension-loop.[30] This scabbard is also decorated on the front with floral motifs surrounding two birds' heads with open beaks and marked feathers. The floral motifs are characteristic for the style of Hungarian swords,[31] whereas the bird's head motif originates from the central Danube and the Hungarian Plain.[32] Similarly, the ornament engraved on the sword scabbard from Dobova was made in the "Hungarian style", while the bird's head motif is represented on a much older sword scabbard from Drňa in Slovakia dating to LT B.[33] A similar concept connecting a zoomorphic motif and purely decorative elements (plant motifs), appears on the openwork bronze ferrule, probably of a wooden vessel, from Brno-Maloměřice in Moravia.[34] Under the plate there is a reinforcing component in the form of two S-shaped elements. The closest similarity to this type of sword scabbard construction is an item from one of the two skeletal graves from Halmajugra in Hungary.[35] The suspension-loop mounted on this scabbard is very similar to the shape of the item from Aleksandrowice (it is not so richly ornamented). However, most important is that in the scabbard from Halmajugra, like in the specimen from Poland, the pendant arms are connected to the cross bar made of two S-shaped slats on the front of a scabbard. These S-shaped slats were also present on sword scabbards from Gournay-sur-Aronde in France. Scabbards with such reinforcements were placed in the group no. 7.[36]

The scabbard of the sword from Rzeszów has a short suspension-loop with asymmetrical round plates, which, like the front part of the scabbard, is decorated (Fig. 4/B). Ornamental sword scabbard suspension-loops geographically closest to Poland are known from Bohemia, Moravia and Slovakia. They come from such localities as Ponětovice,[37] Drňa,[38] Detva[39] and Kobylnice.[40] The scabbard from Rzeszów has a decorative motif on the front, i.e. an engraved dragon-pair ornament (Fig. 4/A).[41] On the basis of the detailed analysis of the image presented by A. Kunysz and the examination of the artefact, it is possible to assume that this was an ornament of type I or I/III.[42] Above these ornaments there is another motif of carved arches exactly below the line of the scabbard throat and extending over its whole width. This item is also an interesting example due to its characteristic chape, consisting of two strips (not preserved). According to Kunysz, before the restoration, the find from Rzeszow had two slightly separated horizontal strips in the bottom part of the scabbard.[43]

[23] Jahn 1934, Fig. 21.

[24] Lejars 1994, 27.

[25] Bujna 1995, 24–25 and Pl. 6/1.

[26] Rosen-Przeworska 1946–1947, Figs. 9, 10/1.

[27] Szabó, Petres 1992, Pls. 2–3.

[28] Szabó, Petres 1992, Pl. 16.

[29] Todorović 1974, Figs. 62, 98.

[30] Szabó, Petres 1992, Pl. 107.

[31] Szabó, Petres 1992, 37–55.

[32] Szabó, Petres 1992, 52.

[33] Megaw 1973, Fig. 2.

[34] Filip 1956, Pl. LXXVII/4. – Meduna 1992.

[35] Szabó, Petres 1992, Pl. 17.

[36] Lejars 1994, 38.

[37] Part G and grave no. 9. – Meduna 1962, 131 and Fig. 14/2. – Čižmářová 2004, 207.

[38] Megaw 1973, Fig. 2, Pl. 83.

[39] Scabbard no. 3113. – Sankot 2005, Fig. 1/3, 3a.

[40] Grave no. 9. – Filip 1956, Fig. 37/7. – Čižmář 1975, Fig. 9/7.

[41] Kunysz 1962, Fig. 3A. – Tomaszewska 1997, 147 and Footnote 4. – Bochnak 2005, 43, 154–155. – Łuczkiewicz 2006, 46.

[42] Kunysz 1962, Fig. 3/a.

[43] Kunysz 1962, Fig. 3.

While analyzing the picture from the publication of Kunysz, it is possible to discern the bottom strip placed 9 cm over the tip of the blade. Another strip is hardly noticeable, but with some effort the arched strip can be seen slightly above the bottom strip – 17 cm from the tip of the blade (Fig. 5/B, C). The mounting discs on the front of the scabbard were placed close to the bottom strip. Kunysz does not, however, mention any discs close to the upper strip. In the author's view, such a chape construction may suggest that the scabbard was modified or repaired in the past. The tendency to repair or modify scabbards was particular for central-eastern Europe in both the LT B and LT C periods. An example of this practice is a sword scabbard from the museum in Ruse in south-eastern Bulgaria.[44] The appearance of this scabbard indicates that some repairs had also resulted in placing a pre-mounted horizontal crossbar in ¾ of its length.[45] Thus, the conclusion that the scabbard from Rzeszów could undergo such changes, which would substantiate its form (especially that of the chape), is supported.

Unfortunately, because of very fragmentary preservation, nothing precise can be said about the scabbards from the graves no. 4/1927 from Głownin and no. 3/1900 from Sobocisko. The sword scabbards from grave no. 5/1908 in Sobocisko have been lost together with all the equipment from the grave. The inventory – including the scabbards – of the grave from Wiązów has not been published yet.[46]

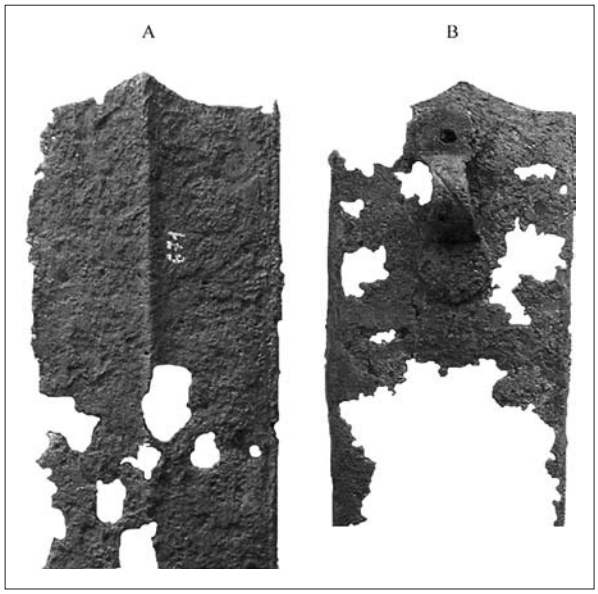

Fig. 4. Sword scabbard from Rzeszów. – A: Front part with "dragon pair" ornament. – B: Back side with decorated suspension-loop (author's archive).

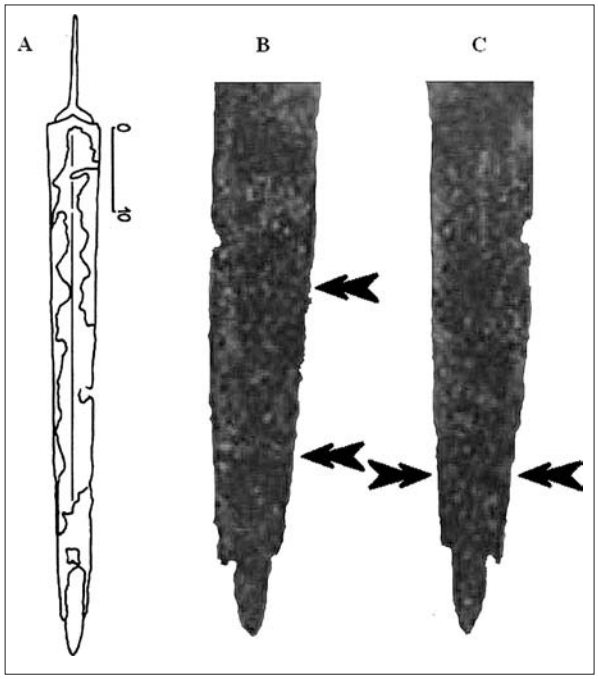

Fig. 5. – A: Sword from Rzeszów. – B: Lower part of the scabbard with chape elements, back side. – C: Lower part of the scabbard with chape elements, front side (after Kunysz 1962. – Łuczkiewicz 1997).

SWORD-BELTS

One of the vital and indispensable elements of equipment of a Celtic warrior fighting with a sword was a sword-belt. Among Celtic burials from Poland, there are numerous artefacts constituting fragments of soft, stiff and half-stiff (chain) belts.

The sword-belts' rings were made of iron or bronze. The 24 specimens originating from the Celtic burials found in Poland can be divided into two groups with respect to their structure. The first group consists of six rings made from a uniform bar with a round cross-section (Tab. 3). The second group consists of 18 torpid belt rings made of two iron or bronze plates (Tab. 4). According to the division, which was proposed by B. Raftery,[47] one can distinguish two major types in the items in the second group. They have been divided taking into account the construction of the belt rings. The first type is represented only by a specimen from grave no. 1–2/1891 in Sobocisko. This bronze belt ring is made from two moulded plates connected with each other by means of three small rivets. Traces of the rivet are located at the surface of the artefact, in the form of three small recesses. The rest of the belt rings represent the second type and their design is completely different. They were formed in two ways: one method was imposing the edge of one half over the second and a lapped splice (for example, the ring from grave no. 3a/1955 from Sobocisko). The second way of connecting plates, according to Raftery,[48] requires

[44] Anastassov 2007.

[45] Anastassov 2007, 170–171 and Figs. 3–5.

[46] See Kosicki 1996, 276.

[47] Raftery 1988, 1–4.

[48] Raftery 1988, 2.

Locality	Grave	Thickness	Diameter	Inner diameter	Construction	Notes	Literature
Kietrz	1699	0.5	2.5	2	iron	1 ring	Gedl 1978, 36 and Fig. VI/7
Sobocisko	7/1940	1.5	3.5	2	iron	2 rings	Hoffmann 1940, 13 and Fig. 3/3–4
	26/1940	0.8	3.5	2.6	iron	3 rings	Hoffmann 1940, 21–22 and Fig. 12/5

Tab. 3. Belt rings from uniform bar with round cross-section from the La Tène Culture sites in Poland.

Locality	Grave	Thickness	Diameter	Inner diameter	Construction	Notes	Literature
Kietrz	1699	1.4	3.8	0.5	iron	1 ring	Gedl 1978, 36 and Fig. VI/5
	1699				iron	fragment	Gedl 1978, 36 and Fig. VI/6
	1701	1	3.4-3.5	1-1.2	iron	3 rings	Gedl 1978, 39 and Fig. VIII/5–7
Sobocisko	1–2/1891				bronze	1 ring	Jahn 1931, 114–116 and Fig. 7/2–2a
	8/1040	0.8	2.5	0.4	bronze	3 rings	Hoffmann 1940, 13–14 and Fig. 8/2
	9/1040	1	3.4	1.6	bronze	3 rings	Hoffmann 1940, 15–16 and Fig. 8/7
	24/1940	0.8	3.5	0.6	iron	3 rings	Hoffmann 1940, 17–18 and Fig. 12/10
	3a/1955	1	3	0.3	bronze	3 rings	Czerska 1966, 96 and Fig. 16/d–g

Tab. 4. Torpid belt rings from the La Tène Culture sites in Poland.

the application of soldering because one cannot see the place where the edges are joined. This kind of construction is found in rings from both warriors' graves from the Kietrz cemetery. Unfortunately no more details about the construction of other torpid belt rings are available, so their classification is not certain.

Chain belts were discovered in seven graves (Tab. 5). The belt type most frequently represented in Poland is type 7 according to the Rapin typology.[49] These belts came from grave no. 34 in Iwanowice (Fig. 6/C), an alleged warrior grave in Kraków-Pleszów (Fig. 6/D) and grave no. 2–3/1904 in Głownin (Fig. 6/A). A frequent feature in the La Tène Culture type was the belt with long, repeatedly twisted links, which in Poland was found in grave 1/1952 in Sobocisko (Fig. 6/B). It resembles type 5.[50] A rare type of chain sword-belt was discovered in grave 6/1930 in Głownin (Fig. 6/A). It is a 9 cm-long fragment of a type 3 sword-belt.[51] Another example is the specimen found in the same cemetery in grave no. 1/1930 (Fig. 6/A). These types of belts belong to type 6,[52] in the German terminology also called the *Fuchsschwanzketten*.[53] Yet another example is the so-called armoured belt,[54] decorated with the inscribed ornament, which represents type 8.[55] It was found in grave no. 9 in Iwanowice (Fig. 6/C).

The last artefact related to the metal Celtic belts is the artefact found in the warrior's grave in Aleksandrowice (Fig. 6/E).[56] This one is different, not chain, but it is a rare phenomenon in the whole of central Europe, as the only known counterpart is the belt of the same construction discovered in grave no. 47 in the cemetery in Brežice in Slovenia.[57] However, in this case it appears that it was not used to carry the sword, but only as a decorative element. This is substantiated by the fact that in the above-mentioned grave from Brežice, an armoured chain belt of type 8 according to the Rapin's typology was also found. Thus, this chain belt seemed to be used for carrying the sword, while the segmented belt was a decoration.

SPEARHEADS

Another vast category of metal weaponry elements originating from Celtic graves in Poland is the spearheads. They are known from 19 graves (Tab. 6). Individual finds are also known from the settlements in Dalewice, Smroków in Lesser

[49] Rapin 1987, 536 and Fig. 9/7.

[50] Rapin 1987, 536 and Fig. 9/5.

[51] Rapin 1987, 536 and Fig. 9/3.

[52] Rapin 1987, 536 and Fig. 9/6.

[53] Schönfelder 1998, 79–80.

[54] Filip 1956, 170.

[55] Rapin 1987, 536 and Fig. 9/8.

[56] Bochnak 2006, Fig. 7/1–7.

[57] Szabó, Petres 1992, Pl. 103.

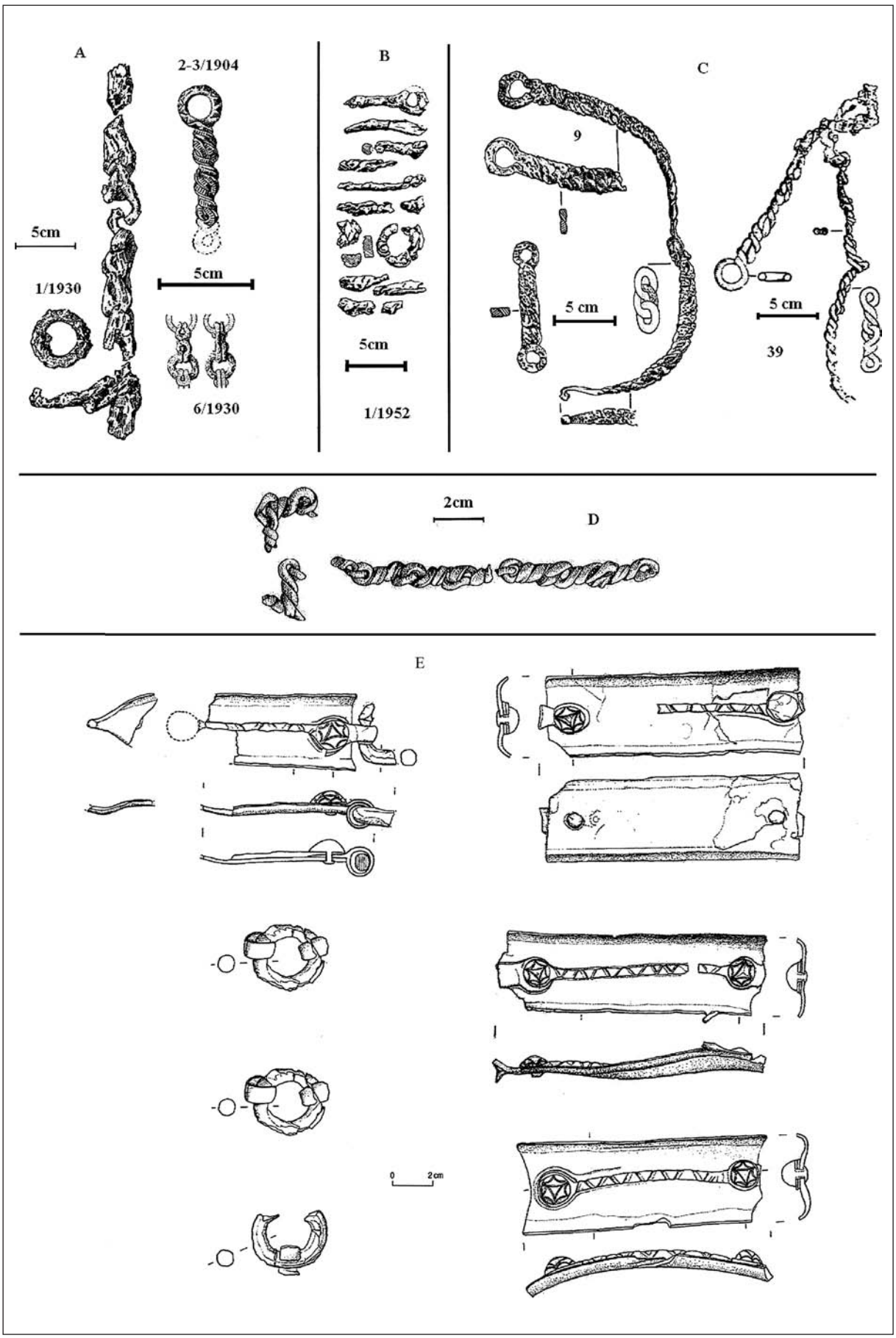

Fig. 6. Chain-belts and segmented belt. – A: Głownin. – B: Sobocisko. – C: Iwanowice. – D: Kraków-Pleszów. – E: Aleksandrowice (after Jahn 1931. – Rosen-Przeworska 1946–1947. – Czerska 1966. – Bochnak 2006. – Poleska 2006).

Locality	Grave	Type Rapin 1985	Preserved Length	Notes	Literature
Głownin	2–3/ 1904	7	7.5 cm	fragment with ornamentation	Jahn 1931, 50–51 and Fig. 45/4
	1/1930	6	45 cm	5 fragments	Jahn 1934, 120–122 and Fig. 15/4
	6/1930	3	9 cm	ring and one piece of chain	Jahn 1934, 123–124 and Fig. 19/20
Iwanowice	9	8	44 and 13 cm	whole belt preserved	Rosen-Przeworska 1946–1947, 187 and Figs. 10/3, 11/1, Pl. IV
	34	7	55 cm	whole belt preserved	Rosen-Przeworska 1946–1947, 184 and Fig. 5, Pl. IV
Kraków Nowa Huta-Pleszów	"alleged" grave	7	22 cm	3 fragments	Poleska 2006, Fig. 22/3
Sobocisko	1/1952	5	N	36 fragments	Czerska 1966, 90 and Fig. 4/O

Tab. 5. Chain belts from the La Tène Culture sites in Poland.

Poland and Smoleń in Silesia.[58] One small spearhead also comes from the Celtic cult place on the top of Ślęża Mountain in Lower Silesia.[59] However, in this approach spearheads from settlements and the Ślęża are not included in the study, because their cultural affiliation is uncertain.[60] A similar situation is seen with the spearheads from Dalewice, Smroków, and Smoleń; there is a suspicion that they are associated with the Przeworsk Culture. Although they are few in number, it is possible to discern the differences and therefore divide them into four groups (Tab. 6).

Group I: the spearheads with a short socket, long and narrow head and significant rib continuing the line of the socket (Fig. 7/I). To this group belongs a specimen from grave no. 9 in Iwanowice, which has an ornament engraved on the socket.[61] Similarly decorated sockets were encountered on the artefacts from central and eastern Europe. Spearheads with this type of decoration have been discovered in the cemeteries in Dubnik, grave 30[62] and Maňa, grave 59,[63] both localities in southwestern Slovakia.

The most numerous is **group II**. It is represented by the spearheads with a wide head and significant rib continuing the line of the socket (Fig. 8). Within this group the following subdivision can be made: sub-group IIA: long, wide and a laurel leaf with a short socket (Fig. 8/I); sub-group IIB: lower leaf width and longer socket (Fig. 8/II); and sub-group IIC: the smallest spearheads with a wide leaf (Fig. 8/III).

Group III consists of the spearheads with a narrow leaf and a short socket (Fig 7/II).

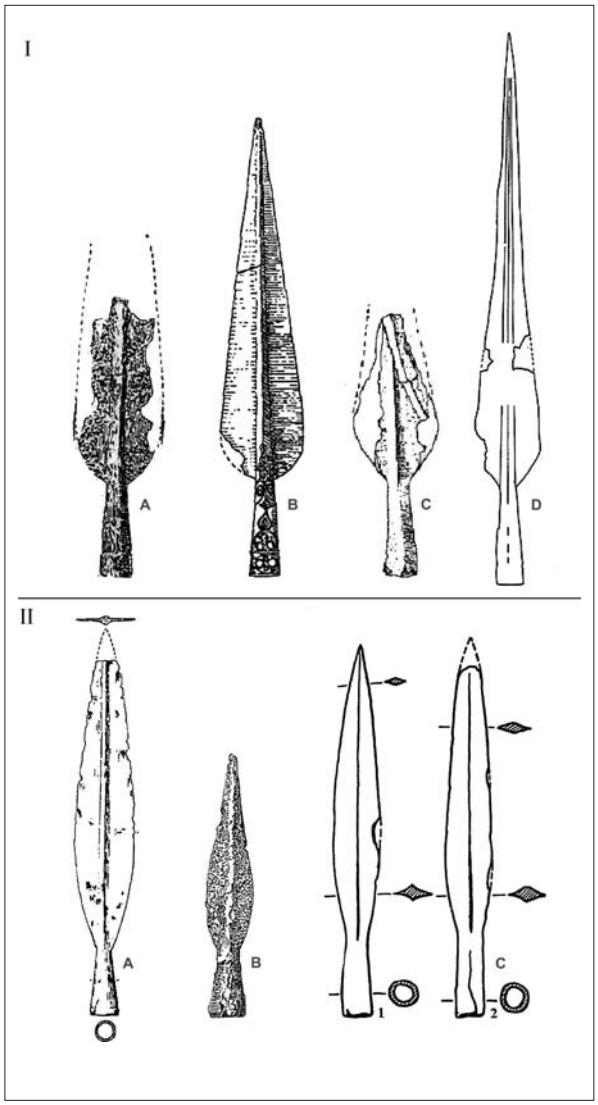

Fig. 7. – I: Spearheads of group I. – A: Głownin, grave 2–3/1904. – B: Iwanowice, grave 9. – C: Iwanowice grave 34. – D: Aleksandrowice. – II: Spearheads of group III. – A: Sobocisko, grave 1/1952. – B: Sobocisko, grave 3/1900. – C: Sobocisko, feature x/1965 (after Jahn 1931. – Rosen-Przeworska 1946–1947. – Czerska 1966. – Bochnak 2006).

[58] Woźniak 1970, 128, 327, 334 and Fig. XLVII/1. – Bochnak 2005, 127.

[59] Petersen 1937, 271 and Fig. 1. – Woźniak 1970, 291.

[60] Bochnak 2005, 17, 236, 240, 243.

[61] Rosen-Przeworska 1946–1947, Fig. 14/1.

[62] Bujna 1989, 230 and Pl. XXXIII/4.

[63] Benadik 1983, 34 and Pl. XXIII/3.

Locality	Grave	TL	WB	LS	DH	LB/LS	LB/WB	TL/LS	Notes	Group	Literature
Aleksandrowice	1	39	5	7	2	4.7	6.4	5.5		I	Bochnak 2006, 168 and Fig. 8/8–8a
Iwanowice	32	32.5	3	5.8	2	4.6	8.9	5.6		I	Rosen-Przeworska 1946–1947, 184 and Fig. 3/2
	9	28.2	5	6.8	2	4.2	4.2	4.1		I	Rosen-Przeworska 1946–1947, 187–188 and Fig. 13/14
Głownin	2–3/1900		5.5	6.5	2				broken	I	Jahn 1931, 14 and Fig. 7/6
Sobocisko	7/1940	44	10.5	9	2	3.8	3.3	4.8		II A	Jahn 1931, 114–116 and Fig. 7/7
	24/1940	38	10	6.5	2	4.8	3.1	5.5		II A	Hoffmann 1940, 17–18 and Fig. 12/11
	9/1940	37	10	8.5	2	3.3	2.8	4.3	damaged	II A	Hoffmann 1940, 15–16 and Fig. 8/3
	3a/1955	35	10	9.5	2	2.6	2.5	3.6		II A	Czerska 1966, 96 and Fig. 16/y
Kraków-Witkowice	1	37	7	10	2	2.7	3.8	3.7		II B	Woźniak 1970, 128, 327 and Fig. XLVII/1
Sobocisko	1–2/1891	40	6.5	15	2	1.6	3.8	2.6		II B	Jahn 1931, 14 and Fig. 7/4
	8/1940	37	6.5	13.5	2	1.7	3.6	2.7		II B	Hoffmann 1940, 13–14 and Fig. 8/3
	26/1940	31	7.7	10.5	2	1.9	2.6	2.9		II B	Hoffmann 1940, 21–22 and Fig. 12/6
Kietrz	1701	26	7.7	8	1.5	2.2	2.3	3.2		II C	Gedl 1978, 39 and Fig. VIII/3
	1699	24	8.6	8	1.8	2	1.8	3		II C	Gedl 1978, 36 and Fig. VI/3
Sobocisko	1/1952	29.4	4.4	5.4	2	4.4	5.4	5.4		III	Czerska 1966, 90 and Fig. 16/d
	x/1952	27	3.5	6	1.8	3.5	6	4.5		III	Woźniak 1970, 289
	3/1900	20.5	3.4	5	2	3.1	4.5	4		III	Jahn 1931, 114–116 and Fig. 7/7
Głownin	1/1930	60	8.5	31.5	2.5	0.9	3.3	1.9		IV	Jahn 1934, 120 and Fig. 15/1
Karncza Góra	1	36	4	24	3	0.5	0.5	1.9		IV	Jahn 1931, 15 and Fig. 6/3

Tab. 6. Parameters of Celtic spearheads from the La Tène Culture sites in Poland.
Metric features: TL – total length; WB – width of blade; LS – length of socket; DH – diameter of hole in socket; LB/LS – ratio of length of blade to length of socket; LB/WB – ratio of the blade length to the width of the blade; TL/LS – ratio of total length to length of socket.

The exceptional shape and length of two spearheads prompted the researchers to distinguish another **group IV**: these are the spearheads from grave no. 1/1030 in Głownin and from Karncza Góra (Fig. 9/I). Specimens of this construction appeared very early in central and eastern Europe. An example may be a spearhead dated to phase LT B1b from grave no. 2 in the cemetery in Stánce in northern Bohemia.[64] More often, however, they are encountered in graves dating back to LT B2/C1 and LT C1. The following might serve as examples: Bajč Vlkanovo, graves 1 and 5,[65] Hotin, grave 28,[66] both in southwestern Slovakia, Horný Kšely[67] and Nový Bydžov[68] in central Bohemia. The spearhead from the hilltop settlement of Galliš-Lovačka in southwestern Ukraine (complex G60) represents a very good analogy to the spearhead from Karncza Góra.[69]

Another two spearheads have been found in Poland, one in the grave discovered in Wiązów[70] and

[64] Waldhauser 1987, 141 and Pl. 27/7.

[65] Benadik 1960, 393, 395 and Figs. I/6, II/12.

[66] Ratimorská 1981, 56 and Fig. XXI/9.

[67] Waldhauser 2001, 285.

[68] Filip 1956, Fig. XXII/6.

[69] Kobal 1995–1996, 147 and Fig. 3/1.

[70] Kosicki 1996, 276.

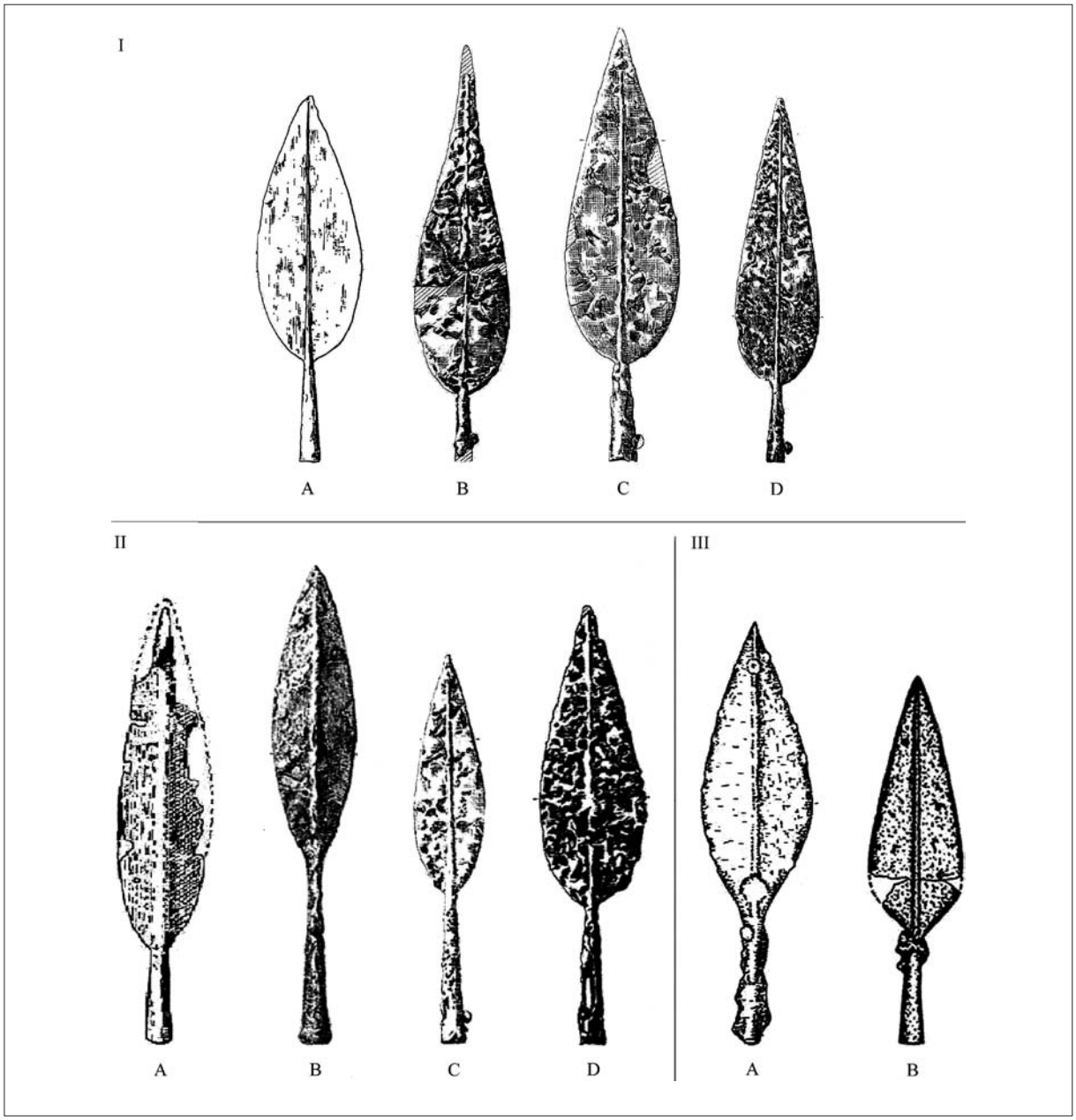

Fig. 8. – I: Spearheads of group IIA. – A: Sobocisko, grave 3a/1955. – B: Sobocisko, grave 24/1940. – C: Sobocisko, grave 9/1940. – D: Sobocisko, grave 7/1940. – II: Spearheads of group IIB. – A: Kraków-Witkowice. – B: Sobocisko, grave 1–2/1891. – C: Sobocisko, grave 8/1940. – D: Sobocisko, grave 26/1940. – III: Spearheads of group IIC. – A: Kietrz, grave 1701. – B: Kietrz, grave 1699 (after Jahn 1931. Hoffmann 1940. – Czerska 1966. – Woźniak 1970. – Gedl 1978).

one in grave 5/1908 in Sobocisko. Unfortunately, nothing more can be said about the specimens from Wiązów[71] and the materials from Sobocisko were lost.[72] Moreover, fragmented preservation of the specimen from grave 1–2/1891 in Sobocisko precludes an accurate analysis.

The Celtic metal spear butt caps, covering the far end of the shaft were a supplement to a spearhead. The number of such butt caps found in the Celtic graves amounted to five (Tab. 7) and all had the form of a socket. This type is most popular in central and eastern Europe and dominates from the early till the late phase of the La Tène period.

SHIELDS

Another type of artefact often discovered in the Celtic warriors' graves in Poland is metal fragments of the shield. The most frequent examples are the rims from the middle of the shield. These elements were found in eight graves: two in Kietrz and six in Sobocisko (Tab. 8). The edge rims of the shield were also found in eight graves: four in Sobocisko, two in

[71] Kosicki 1996, 276.

[72] Wozniak 1970, 288.

Location	Grave	Length	Diameter of hole in socket	Literature
Głownin	1/1930	6.8	3.7	Jahn 1934, 120 and Fig. 15/2
Kietrz	1701	9.5	2	Gedl 1978, 40 and Pl. VIII/10
Sobocisko	7/19409	9.5	2	Hoffmann 1940, 12–13 and Fig. 3/8
	9/1940	9	1.8	Hoffmann 1940, 15–16 and Fig. 8/5
	24/1940	10	2	Hoffmann 1940, 17–18 and Fig. 12/13

Tab. 7. Celtic metal spear butt caps from the La Tène Culture sites in Poland.

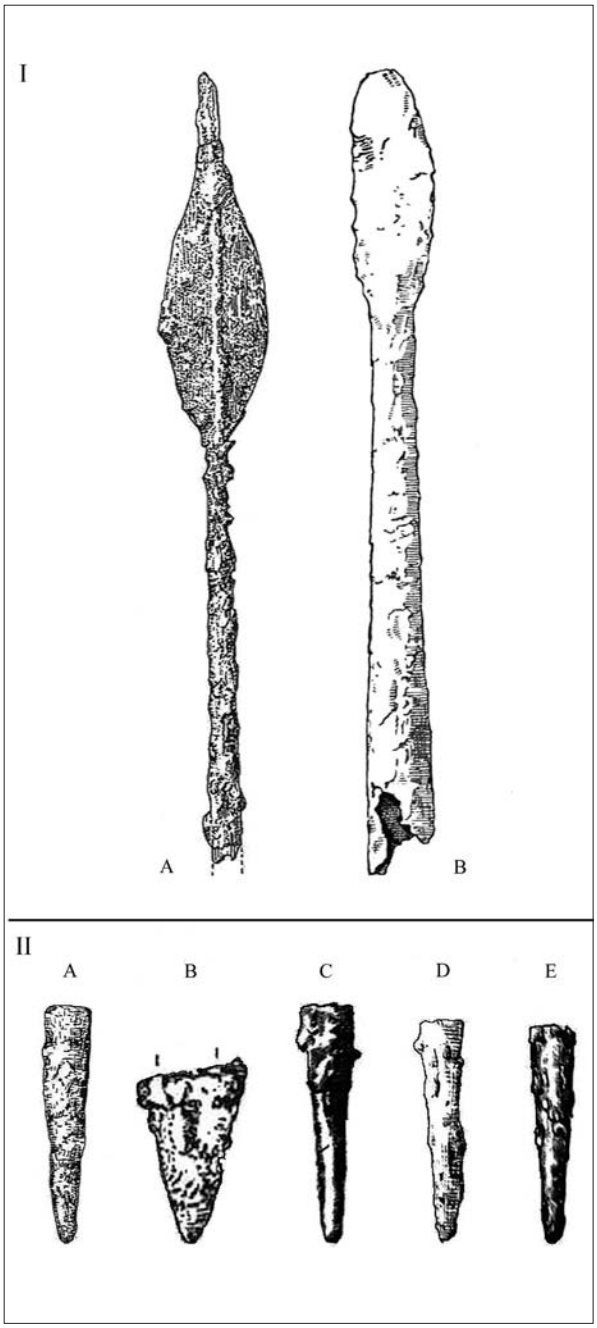

Fig. 9. – I: Spearheads of group IV. – A: Głownin, grave 1/1930. – B: Karncza Góra. – II: Spear-butt caps. – A: Kietrz, grave 1701. – B: Głownin, grave 1/1930. – C: Sobocisko, grave 7/1940. – D: Sobocisko 9/1940. – E: Sobocisko, grave 24/1940 (after Jahn 1931. – Jahn 1934. – Hoffmann 1940. – Gedl 1978).

Kietrz and in single graves from Głownin and Iwanowice (Tab. 9).

Another element of the Celtic shield was a handle used to carry and use a shield (Fig. 10/I). There are five artefacts representing two groups of handles – B and C – according to the typology proposed by M. Domaradzki[73] (Tab. 10; Fig. 10).

It seems that in the source publication the shield handle from grave 9/1940 in Sobocisko was described incorrectly. W. Hoffmann considered the highly corroded fragments of the boss to be parts of the shield handle.[74] However, the two discs with dimensions of 5.5 × 5.5 cm can be recognized as components of the shield handle, while three more (one square and two rectangular) can be identified as boss components (Fig. 10/I/A1, I/A2). Two cupular fittings weigh in favour of such an interpretation as they are the front part of the shield handle mounting together with the iron rivets stuck in them. Such a rivet passing through the wooden shield also went through the discs of a shield handle. A similar solution can be observed in the shield from grave 3a/1955 in the same cemetery (Fig 10/I/D1, I/D2). It seems that the shield handle from grave 9/1940 could be a specimen of type B according to Domaradzki. One of the remaining discs has a fitting from the middle rib shield attached to its surface, and this would suggest that it is the structural fragment of an umbo, rather than a shield handle.

In the source publication, the shield handle from grave 1/1952 (Fig. 10/I/B) was also unnoticed and interpreted as a crescent fitting probably connected with the sword sheath.[75] However, the shape of the specimen calls for this element to be recognized as part of the shield handle. It is identical to the forms of the shield handle discs from graves 3a/1955 and 7/1940 from the same site. This interpretation is supported by the fact that it was located in the grave next to an umbo and a cupular fitting which is described as a fitting on top of the shield boss.

The most characteristic element of the Celtic shield was a metal boss. Among the artefacts found in Poland, there are two types of shield bosses (Tab. 11;

[73] Domaradzki 1977, 65.

[74] Hoffmann 1940, 16 and Fig. 8/6.

[75] Czerska 1966, 90 and Fig. 4a.

Locality	Grave	Width	Total length	No of elements	Literature
Kietrz	1699	0.7- 0.8	155	45	Gedl 1978, 36 and Fig. VI/10
	1701	0.5	67	23	Gedl 1978, 40 and Fig. VIII/13
Sobocisko	7/1940	0.8	54.5	13	Jahn 1931, 114–116 and Fig. 7/6
	8/1940	1	41	6	Hoffmann 1940, 13–14 and Fig. 8/4
	9/1940	0.8	72	21	Hoffmann 1940, 15–16 and Fig. 8/6
	24/1940	0.9	50	12	Hoffmann 1940, 17–18 and Fig. 12/12
	26/1940	0.7	108	24	Hoffmann 1940, 17–18 and Fig. 12/2
	3a/1955	1	78	18	Czerska 1966, 96 and Fig. 16/n, r

Tab. 8. Rims from the middle of the shield from the La Tène Culture sites in Poland.

Locality	Grave	Width	Total length	No of elements	Shape of shield	Literature
Głownin	1/1930	1	56	3	round?/oval?	Jahn 1934, 120 and Fig. 15/6
Iwanowice	9	n	27	3	oval	Rosen-Przeworska 1946–1947, 189 and Fig. 13/14
Kietrz	1699	0.7	1.43	45	oval	Gedl 1978, 36 and Fig. VI/8
	1701	0.5- 0.6	2.36	47	oval	Gedl 1978, 40 and Fig. VIII/12
Sobocisko	24/1940	0.7	2.68	62	oval?	Hoffmann 1940, 17–18 and Fig. 12/12
	26/1940	0.7	n	n	oval	Hoffmann 1940, 17–18 and Fig. 12/2
	1/1952	0.3- 0.6	66	n	rectangular?	Czerska 1966, 90 and Fig. 4/o
	3a/1955	0.6	199.5	70	oval	Czerska 1966, 96 and Fig. 16/i, l

Tab. 9. The edge rims of the shields from the La Tène Culture sites in Poland.

Location	Grave	Preserved length	Wight of plates	Type Domaradzki 1977	Notes	Literature
Kietrz	1701	14	4	B	whole	Gedl 1978, 40 and Pl. VIII/11
Sobocisko	7/1940	9	5	C	fragments	Hoffmann 1940, 13 and Fig. 3/5
	9/1940	n	5.5	B	fragments	Hoffmann 1940, 16 and Fig. 8/6
	1/1952	2.5	5.4	C	only plate	Czerska 1966, 90 and Fig. 4/a
	3a/1955	20	6,5	C	whole	Czerska 1966, 96 and Fig. 16/z

Tab. 10. Shield handles from the La Tène Culture sites in Poland.

Fig. 10/II). The first type – two-part bosses of group I A according to Domaradzki's typology[76] – were discovered in three graves in Sobocisko. The second type of shield bosses comprises two sub-types. Items of type II 1A,[77] band-shaped with rectangular wings, are similar to type 1b bosses found in Gournay-Sur-Aronde in France.[78] And bosses of type II1Dbγ,[79] band-shaped with triangular wings ending in a narrow point, correspond to type IIIA in the typology from Gournay-Sur-Aronde.[80]

Also the rivets used for the construction of the shield were found in four graves in Poland in Kietrz and Sobocisko (Tab. 12).

All of the aforementioned shield elements are an accurate reflection of the situation which prevailed at that time in the whole of central Europe. They are similar to finds which came from areas of Slovakia, Moravia and Bohemia, and are very common in the La Tène Culture.

[76] Domaradzki 1977, 56–57.

[77] Domaradzki 1977, 58.

[78] Brunaux, Meniel, Poplin 1985, 79.

[79] Domaradzki 1977, 60–61.

[80] Brunaux, Meniel, Poplin 1985, 80.

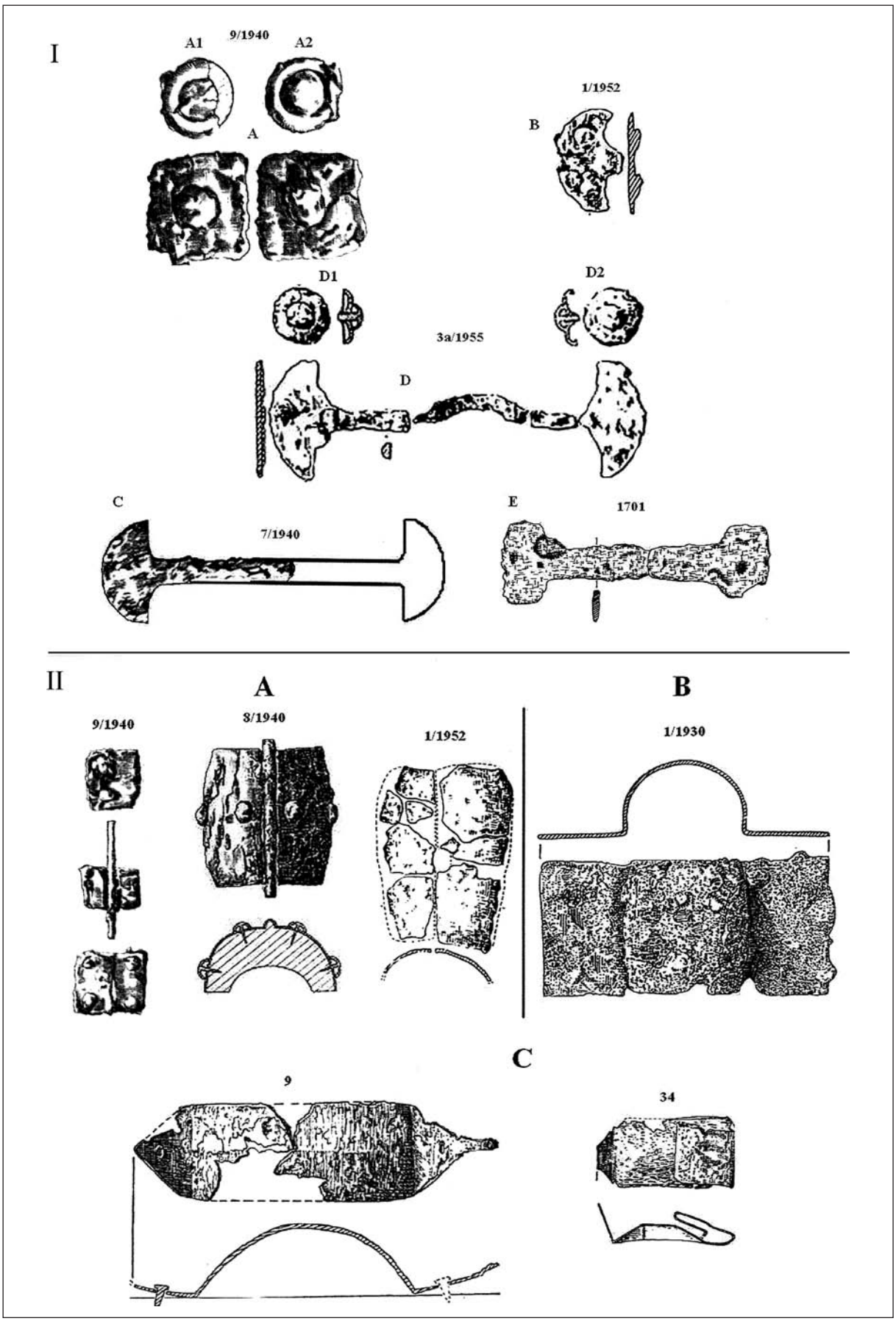

Fig. 10. Metal shield elements. – I: Shield handles. – A–D: Sobocisko. – E: Kietrz. – II: Shield bosses. – A: Sobocisko. – B: Głownin. – C: Iwanowice (after Jahn 1934. – Hoffmann 1940. – Rosen-Przeworska 1946–1947. – Czerska 1966. – Gedl 1972).

Location	Grave	Type Domaradzki 1977	Height	Weight	Literature
Głownin	1/1930	tape boss II 1A	11	22	Jahn 1934, 120 and Fig. 15/5
Iwanowice	9	tape boss II1Dbγ	8	preserved 30	Rosen-Przeworska 1946–1947, 189 and Fig. 12, Pl. III/8
	34	tape boss II1Dbγ	5.5	preserved 22	Rosen-Przeworska 1946–1947, 184–185 and Fig. 7, Pl. III/7
Sobocisko	8/1940	two-part bosses group I type A	11	7	Hoffman 1940, 14 and Fig. 5
	9/1940?	two-part bosses group I type A	–	–	Hoffman 1940, 16 and Fig. 8/6
	1/1952	two-part bosses group I type A	14.5	10.4	Czerska 1966, 90 and Fig. 4/k

Tab. 11. Shield bosses from the La Tène Culture sites in Poland.

Location	Grave	Diameter of rivet head	Length	Quantity	Literature
Kietrz	1699	1.3–2	1.1–1.9	7	Gedl 1978, 37 and Pl. VI/11-17
	1701	1.4–1.7	–	7	Gedl 1978, 40 and Pl. VII/14-24
Sobocisko	1/1952	1.5–2.9	0.6–0.9	5	Czerska 1966, 90 and Fig. 4/g–j
	3a/1955	1.1–1.5	0.5	6	Czerska 1966, 96 and Fig. 16/e, m, o, p, u

Tab. 12. Rivets from shield construction on La Tène Culture sites in Poland.

CHRONOLOGY OF THE CELTIC WARRIOR BURIALS FROM POLAND

Fewer Celtic graves with military associations are known from Poland than from the neighbouring areas of Bohemia, Moravia or Slovakia. However, the time span of the finds is quite considerable (Tab. 13). The proposed chronology of the individual sites and entire inventories is based on the chronological system for the area of Poland proposed by Z. Wozniak.[81] It has been correlated on the basis of chronological systems proposed for the neighbouring areas of Moravia,[82] Bohemia[83] and Slovakia.[84]

Among the oldest artefacts are: the spearhead found in grave no. I in Karncza Góra and the weaponry preserved in the burial of a warrior from Wiązowo. Both features are dated to the phase LT B1.[85]

The turn of phases LT B1/B2a may be represented by the inventory of grave no. 26/1940 in Sobocisko. In my opinion, this grave has the oldest set of weapons that can be seen in this cemetery. An important element of its equipment are sword-belt rings which occupy the earliest chronological position. The examples from phase LT B2a are the artefacts from graves nos. 1699 and 1701 in Kietrz and from graves nos. 7/1940, 8/1940, 24/1940, 3a1955 in Sobocisko. Such a dating may be justified by the fact that these graves contain elements of weaponry such as: younger forms of sword-belt rings and smaller two-piece shield bosses. This is also confirmed by an iron fibula from grave 3a1955 in Sobocisko. It seems that it represents the type A3 by J. Bujna,[86] and is dated to the period LT B2a.[87]

The weaponry originating from phase LT B2b was found in graves nos. 9/1940 and 1/1952 in the cemetery in Sobocisko. As Raftery suggests, the inventory of grave no. 1–2/1891 from Sobocisko could also be assigned to the same period, based on the chronology of the bronze ring of the sword-belt found in this grave.[88]

The objects discovered in the graves of the cemetery in Głownin can be dated to the phase LT B2/LT C1. These are the graves nos. 1/1930 and 6/1930. In the inventory of grave 1/1930 are finds such as a "Fuchsschwanzketten" chain belt and a band-shaped shield boss. In the case of the second grave, the chronology can by designated by the suspension-loop of

[81] Wozniak 1970. – Wozniak 1979. – Wozniak 1992.

[82] Čižmář 1975.

[83] Waldhauser 1987. – Waldhauser 2001.

[84] Bujna 1982. – Bujna 1991. – Bujna 2003.

[85] Woźniak 1970, 57. – Woźniak 1979, 213. – Kosicki 1996, 276.

[86] Bujna 2003, 48, 64–65.

[87] Bujna 2003, Figs. 62, 64.

[88] Raftery 1988, 6.

Location	Grave	Chronology	Literature
Aleksandrowice		LTC2	Bochnak 2006
Głownin	2–3/1904	LTC1	Jahn 1931
	4/1927	LTB/C?	Jahn 1934
	1/1930	LTB2/C1	Jahn 1934
	6/1930	LTB2/C1	Jahn 1934
Iwanowice	9	LTC1b	Rosen-Przeworska 1946–1947
	34	LTC1b	Rosen-Przeworska 1946–1947
Kietrz	1699	LTB2a	Gedl 1978
	1701	LTB2a	Gedl 1978
Karncza Góra		LTB1	Jahn 1931
Kraków Nowa Huta-Pleszów		LTB2/C1a	Poleska 2006
Kraków-Witkowice		LTC2	Woźniak 1970
Kraków-Wyciąż		LTB/C?	Poleska 2006
Rzeszów		LTC1a	Kunysz 1962
Sobocisko	1–2/1891	LTB	Jahn 1931
	3/1900	LTB	Jahn 1931
	5/1908	LTB	Jahn 1931
	7/1940	LTB2a	Hoffmann 1940
	8/1940	LTB2a	Hoffmann 1940
	9/1940	LTB2b	Hoffmann 1940
	24/1940	LTB2a	Hoffmann 1940
	26/1940	LTB1b/B2a	Hoffmann 1940
	1/1952	LTB2b	Czerska 1966
	3a/1955	LTB2a	Czerska 1966
	X	LTB/C?	Woźniak 1970
Wiązów		LTB1	Kosicki 1996

Tab. 13. Chronology of weaponry from La Tène Culture sites in Poland.

the sword scabbard. The same dating has been given for analogical suspension-loops which have been found on the sword scabbards from such cemeteries as Malé Kosihy in Slovakia, Somogytúr in Hungary and Ceretolo in Italy.[89]

The items from grave no. 1–2/1904 in Głownin are the unquestionable examples dated to the middle La Tène period, i.e. the phase LT C1a. Such a dating may be justified by the dimensions and morphological characteristics of the swords from this grave. Also, the alleged inventory from Krakow-Pleszów is assigned to this phase; however, according to P. Poleska, it could also be dated to the earlier period.[90] Similarly the sword from Rzeszow is also dated to LT C1a.[91]

The subsequent period – LT C1b – is represented by the artefacts from both graves in Iwanowice.[92]

One of the latest artefacts is the spearhead from Krakow-Witkowice, dated as LT C2.[93] I think that the grave from Aleksandrowice can also presumably be dated to the same period. The chronology of the inventory is set by the latest element of the equipment found in the grave. In this case it is a damaged short fibula, which, in my opinion, reflects type D according to J. Kostrzewski.[94] Similar specimens are also found in Slovakia. In the paper on fibulae discovered in graves without weapons by Bujna,[95] iron fibulae which, in my opinion, are analogies for our specimen, have been identified as large iron fibulae of the EF/Ly2 type.[96] The dating of these clips has been clarified by attaching them to the items of the 11th grouping, whose important feature, as in the case of Aleksandrowice, is the so-called internal chord. According to the researcher, it is a feature which already shifts in the direction of phase LT C2, but which is able to place these clips at

[89] Bujna 1995, 262. – Németh, Szabó 1999–2000, 264–265. – Krämer 1985, 41–43.

[90] Poleska 2006, 160.

[91] Woźniak 1996, 11. – Łuczkiewicz 2006, 46.

[92] Woźniak 1991, 178.

[93] Woźniak 1970, 128, 327.

[94] Kostrzewski 1919.

[95] Bujna 2003.

[96] Bujna 2003, 78–81 and Figs. 57, 59, 65.

a very late stage of LT C1 (C1b–c in the chronology of the La Tène period in Slovakia).[97] It seems that this specimen is also well-suited to the typology proposed by R. Gebhard[98] for a large number of fibulae from the Bavarian oppidum Manching. A fibula from Aleksandrowice represents the type of La Tène II construction assigned to group 21b. An important feature is also the retraction of the point of contact of a wrapped-up bow (which forms a sheath for the needle) very close to the spring, on the arc of the bail falling towards it.[99] According to the author, group 21 corresponds exactly with the fibulae D/E and the period of their occurrence is recorded for the phases LT C2 and LT D.[100] Another clue proves to be an S-shaped clip located on the front of the scabbard found in the grave. As presented above, this element occurs with the scabbards of group seven from Gournay-sur-Aronde, and its chronology begins with the LT C2 phase.[101] On the basis of these data, it seems that it is to the LT C2 period that the grave from Aleksandrowice should be dated.

Unfortunately, nothing precise can be said about dating the swords from Krakow-Wyciąże and Sobocisko, graves 3/1940 and 5/1908, nor about dating the spearheads from feature x/1965. The only conclusion which can be drawn is to date the specimen from Sobocisko approximately to LT B, just like the majority of graves from this cemetery. Although information on the flat section of the sword blade from grave 3/1940 might suggest it dates back to the middle La Tène period, it is also obvious that the lack of a rib may be caused by corrosion. The specimen from Kraków-Wyciąże came from a feature dated only generally to the La Tène period.[102] Due to the poor state of preservation of the sword from grave 4/1927 in the cemetery in Głownin, it is also impossible to draw any accurate chronological conclusions.

CONCLUSIONS

The first Celtic weapons appeared in the area of today's Poland as examples of weaponry types widely known in the whole of central Europe. Presumably, the first specimens characteristic for the early La Tène Culture arrived in Poland together with the representatives of this culture arriving from Bohemia and Moravia or even further territories on the Danube in the northern parts of Austria.[103] These consist of the warrior burials in Karncza Góra (grave no. I), Wiązów and Sobocisko (grave no. 26/1940, one of the oldest graves). The artefacts from these are dated to the phases LT B1–B2a. The number of finds increases in the subsequent phase, i.e. LT B2b. These include most of the graves from the largest cemetery in Sobocisko as well as two warrior's graves in Kietrz. At the same time, the first settlers of the La Tène Culture arrived in the area near Kraków.[104] The next chronological phase, i.e. LT B2/C1, is marked by the weaponry characteristic for the middle La Tène period. A new wave of migration probably came from Moravia.[105] It is possible to notice more and more frequent contacts by the Celtic population from Moravia with those from the surroundings of the Danube and the southern areas reaching Slovenia and even northern Italy.[106] During this time, new types of weaponry started to arrive in Poland. It is noticeable not only in Silesia but also near Kraków.[107] A long spearhead discovered in grave no. 1/1930 in the cemetery in Głownin has some indirect counterparts in Bohemia, Moravia and Slovakia. As an example, we can point to a specimen dated to phase LT B1b from the graveyard in Stránce in Bohemia.[108] This type of spearhead is more common in LT C; artefacts dated to this period came from the cemetery in Bajč Vlkanovo, graves nos. 1 and 5 in Slovakia,[109] Horný Kšely and Nový Bydžov in Bohemia[110] and Dražúvki, the grave from 1933 in Moravia.[111]

Similar applies for another spearhead found in the same location, in grave no. 1–2/1904. This artefact could possibly be of the same shape as the spearheads from Iwanowice (graves nos. 9 and 34 – type 1) and Aleksandrowice. Apart from the shape, another prompt suggesting the origins of these artefacts is the ornamentation on the specimen from Iwanowice. The middle La Tène culture is assigned to the graves from Iwanowice and the southern origins of this weaponry were mentioned several times in the literature.[112] Another example of the influence of the La Tène Culture in the Carpathian Basin is the chain sword-belt from Głownin, discovered in grave no.

[97] Bujna 2003, 100.

[98] Gebhard 1991.

[99] Gebhard 1991, 20 and Fig. 7/21b, Pl. 39.

[100] Gebhard 1991, 86 and Fig. 42.

[101] Lejars 1994, 53.

[102] Poleska 2006, 159.

[103] Woźniak 1970, 103–104, 187–188. – Woźniak 1979, 209. – Bednarek 2005, 179. – Bochnak 2006b. – Bochnak 2007. – Dulęba 2009.

[104] Poleska 1996, 212. – Woźniak 2004, 48. – Poleska 2006. – Dulęba 2009. – Dulęba 2014.

[105] Dulęba 2014, 189–192.

[106] Čižmář 2005, 132.

[107] Woźniak 2004, 52.

[108] Waldhauser 1987, Pl. 27/7.

[109] Benadik 1960, Pls. I/6, II/12.

[110] Filip 1956, Pl. XXII/6. – Waldhauser 1987, Fig. 3/44. – Waldhauser 2001, 285.

[111] Čižmářova 2004, 171–172.

[112] Wozniak 1970, 107–109. – Wozniak 2004, 52.

1/1930 which has counterparts in Moravia, Slovakia and as far as Serbia.[113] Within the same cemetery in Głownin another three interesting specimens were discovered. One of them is the decorated fragment of the chain belt from grave no. 2–3/1904. On the basis of this decoration, it may be supposed that the belt is of southern origin. As was mentioned before, a close counterpart exists in the cemetery in Brežice in Slovenia[114] – the same place where another counterpart for the belt from Aleksandrowice was found. The southern influence in the middle La Tène Culture is substantiated by the weaponry found near Kraków. Apart from the inventory of two graves from Iwanowice, the finds from Aleksandrowice play an important role here, especially the warrior's belt.

At the end of the LT C1b period there were significant changes concerning the burial traditions of the Celts, not only near Kraków or in Silesia, but also in the territories of central-eastern Europe.[115] It is related to the disappearance of archaeologically measurable marks of burials. Nevertheless, Celtic burials from this period or even later were discovered in Slovenia, while two burials near Krakow are dated to this time (LT C2) – they are Aleksandrowice and Kraków-Witkowice, grave no. 1. It proves strong connections between these two spheres of the Celtic world. This fact may also suggest that the warrior from Aleksandrowice could be of southern origin. After his death, local Celts respected his customs and buried him according to the old tradition. It is also possible that the intensive arrival of the middle La Tène Culture weaponry could be the result of Celtic migrations. As is widely known, during this time a strong Celtic settlement occupying new terrain is observed in the Carpathian Basin.[116] Another proof of this Celtic migration from the south to the north is the sword from Rzeszów, which presumably arrived here via the Trans-Carpathian way (via the mountain passes of Bieszczady and Low Beskids) towards the settlement area on the San River.[117] It is possible that this artefact came with the first Celtic settlers who arrived in Podkarpacie during the phase LT C1.[118]

As has already been mentioned, at the end of the phase LT C1b there were some essential changes introduced to the burial traditions. Consequently, the Celtic graves disappeared completely from the archaeological record. However, this does not mean the disappearance of Celtic weaponry from archaeological sites; it merely changes its character. Celtic weaponry started to occur as imported elements in the burial inventories of the Przeworsk and Oksywie cultures.[119] The oldest artefacts connected with the beginning of the Przeworsk Culture are long swords in their scabbards with the engraved ornament from Brzozówka, grave no. 3 and from Warszawa-Żerań.[120] Recently, this group of artefacts was extended by a find from an unknown place in Mazovia.[121] M. Biborski and P. Kaczanowski write about the region of the La Tène Culture appropriate for the specimen from Mazovia, but they quote various counterparts originating from the Carpathian Basin. Also the eastern areas of the Celtic culture had workshops that could produce the swords from Brzezówka and Warszawa-Żerań.

There is a relatively small quantity of weapons which can be associated with the La Tène Culture settlement in Poland. They are, however, so diversified, that one can conclude that the local Celtic warriors were up to date with the ever-changing military fashion. They drew not only from the geographically closest models but also from European areas much further afield.

[113] Filip 1956, 170–171. – Woźniak 1970, 59 and Footnote 53.

[114] Szabó, Petres 1992, Pl. 103.

[115] Woźniak 2004, 53.

[116] Woźniak 2004, 48.

[117] Woźniak 2004, 49–52.

[118] Olędzki 2005, 148. – Karwowski 2008.

[119] Woźniak 1970, 157–160. – Dąbrowska 1988, 134–135. – Bochnak 2005, 126–127. – Łuczkiewicz 2006, 359–361.

[120] Rosen-Przeworska 1939–1945. – Woźniak 1970, 157. – Łuczkiewicz 1997. – Tomaszewska 1997. – Dąbrowska 1998, 134–135. – Bochnak 2005, 38, 41–43, 156. – Łuczkiewicz 2006, 181.

[121] Biborski, Kaczanowski 2010.

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SETTLEMENTS

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A NEW EARLY LA TÈNE SETTLEMENT FROM STUPAVA-DEVÍNSKE JAZERO (WEST SLOVAKIA)

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Abstract: At the site of Stupava-Devínske Jazero in western Slovakia a new Early La Tène (LT A) settlement was discovered. At the site, a settlement object with pottery, animal bones and a loom weight was excavated.

Keywords: Western Slovakia, Early La Tène period, La Tène Culture, settlement, pottery

INTRODUCTION

The territory of western Slovakia created the eastern border of the Early La Tène colonisation north of the Danube area. R. Čambal published a map with 10 sites from LT A – LT B1 in western Slovakia and he summarized the situation during this Early La Tène period in the territory of Slovakia.[2] The map was extended by two sites discovered by the author (Fig. 1). Beside three Early La Tène cemeteries from Stupava,[3] Bučany[4] and Bernolakovo[5] we had settlement evidence from five early La Tène settlements. To these sites belong Bratislava-Dúbravka,[6] Trnava,[7] Rakovice[8] and Stupava-Devínske Jazero. Single finds are known from Vištuk,[9] Slovenská Nová Ves[10] and Gbely.[11] The only hilltop site, a hill-fort fortified with ramparts is known from Horné Orešany.[12]

THE NEW EARLY LA TÈNE SITES FROM STUPAVA-DEVÍNSKE JAZERO AND GBELY

Gbely. In the 90s a survey at a settlement from the Iron Age and the Roman period was carried out. Some pottery fragments belong to the Early La Tène period, e.g. a vessel-fragment with an plastic shoulder bar, were found.

Stupava-Devínske Jazero. In 2013 a rescue excavation was undertaken by the author in Stupava-Devínske Jazero, where settlement object 1/2013 was excavated. The evidence of a settlement was recognized during earth-works along the railway. Single finds from the Late Stone Age, the Bronze Age, the Iron Age, the Roman period, the period of Migration of Nations and the Middle Ages were known from the site.[13] Nearby, two Longobard cemeteries from the 6th century[14] and a settlement with a cemetery from the 8th/9th century[15] were investigated. The object 1/2013 occurs as a brown-black oval pit (pit house?). The maximal length was approximately 2.8 m; the maximal width was about 1.7 m; the maximal depth in the middle part of the object was about 0.4 m (Figs. 2–3). In the filling of the object pottery, some animal bones and a loom weight were found.

In the filling of object 23, pottery fragments from the early La Tène period occur. To the characteristic decoration belong a fragment with an plastic shoulder bar (Fig. 4/1). Analogies from Slovakia are known, e.g. from the 5 km-distant settlement of Bratislava-Dúbravka (Fig. 5/1–3, 7)[16] and also from Trnava (Fig. 6/1–4, 9–10).[17] To characteristic forms belong also bowls with an inward rim (Fig. 4/4). Similar bowls are known from Bratislava-Dúbravka (Fig. 7/7–11)[18] and Trnava (Fig. 8/1–6, 8).[19] Another bowl type is the so-called "Knickwandschüssel" (Fig. 4/2); similar finds are known from Bratislava-Dúbravka (Fig. 7/2)[20] and Trnava (Fig. 8/11–12).[21]

[1] The article originated in GP VEGA 2/0001/18.

[2] Čambal 2012, Fig. 6.

[3] Eisner 1930. – Čambal 2012.

[4] Bujna, Romsauer 1983.

[5] Bazovský 2012.

[6] Elschek 1993. – Pieta, Zachar 1993. – Stegmann-Rajtár 1996. – Bazovský, Čambal 2012.

[7] Bartík, Březinová 1996.

[8] Březinová, Benediková 2002.

[9] Bartík, Štrbík 1997.

[10] Čambal 2012a.

[11] Survey carried out by the author.

[12] Čambal 2005. – Bazovský 2006. – Pieta 2007. – Pieta 2008, 18–21.

[13] Farkaš, Iván 1993.

[14] Kraskovská 1963. – Kraskovská 1966.

[15] Kraskovská 1968. – Kraskovská 1972.

[16] Stegmann-Rajtár 1996, Figs. 6/1, 7/4, 10/3, 11/8.

[17] Bartík, Březinová 1996, Pls. I/1–2, 6; V/9, VI/2, XII/1.

[18] Stegmann-Rajtár 1996, Figs. 5/8, 6/7, 7/6, 8, 9/1–2, 11/7.

[19] Bartík, Březinová 1996, Pls. II/1, 10; XI/13, XII/9.

[20] Stegmann-Rajtár 1996, Figs. 5/5, 11; 9/7.

[21] Bartík, Březinová 1996, Pl. II/9.

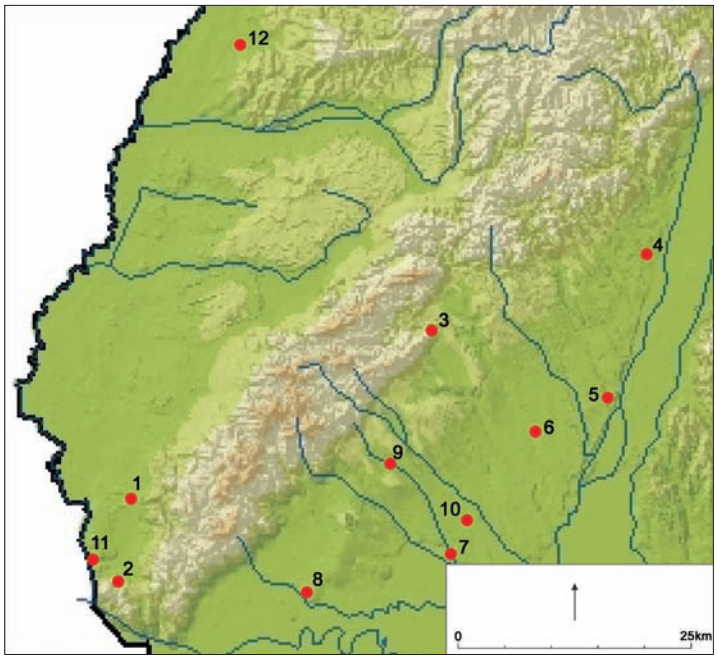

Fig. 1. Map of western Slovakia with Early La Tène (LT A, 450–375 BC) sites from Slovakia (after Čambal 2012, fig. 6, amplified by the author). – 1. Stupava-Cementáreň. – 2. Bratislava-Dúbravka. – 3. Horné Orešany. – 4. Rakovice. – 5. Bučany. – 6. Trnava-Horné Pole. – 7. Veľký Grob. – 8. Bernolákovo. – 9. Vištuk. – 10. Slovenská Nová Ves. – 11. Stupava-Devínske Jazero. – 12. Gbely (graphics: K. Elschek and P. Červen).

Fig. 2. Stupava-Devínske Jazero, feature 1/2013 (photo: K. Elschek).

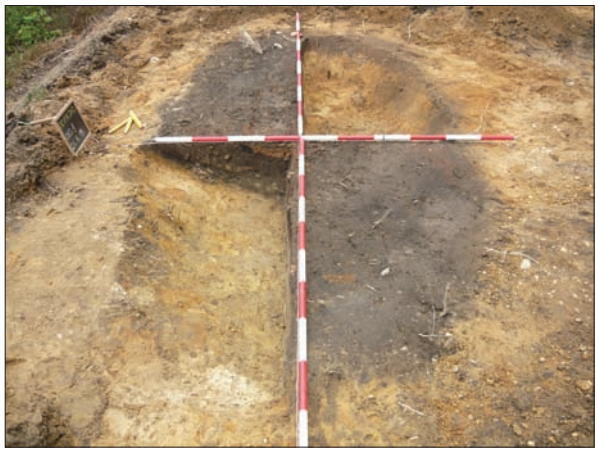

Fig. 3. Stupava-Devínske Jazero, feature 1/2013 (photo: K. Elschek).

LIST OF SELECTED POTTERY FRAGMENTS FROM STUPAVA-DEVÍNSKE JAZERO, FEATURE 1/2013

1. Pot, rim with plastic shoulder bar, fragment, handmade, surface grey-black (Fig. 4/1).
2. Bowl, "Knickwandschüssel", fragment, handmade, surface brown-black (Fig. 4/2).
3. Bowl, rim, fragment, wheel-made, surface light orange (Fig. 4/3).
4. Bowl, inward rim, handmade, fragment, surface brown-black (Fig. 4/4).
5. Pot, bottom, handmade, fragment, surface grey-black (Fig. 4/5).

CONCLUSION

At the south flow of the river Morava three important Early La Tène sites (LT A) from the turning point of the 5th/4th century BC. are situated. The site of Bratislava-Dúbravka is situated about 4 km from the confluence of the rivers Danube and Morava; five settlement objects were excavated here. The settlement of Stupava-Devínske Jazero is situated about 5 km north of Dúbravka and about 8 km northeast of the Early La Tène cemetery from Stupava town. At the settlement Stupava-Devínske Jazero, an object (house?) has been excavated. The settlement activity during the Early La Tène period was concentrated on the east and west slopes of the little Carpathians and the route along the Morava. It is probable that more Early La Tène sites will be located in the region of western Slovakia in the future.

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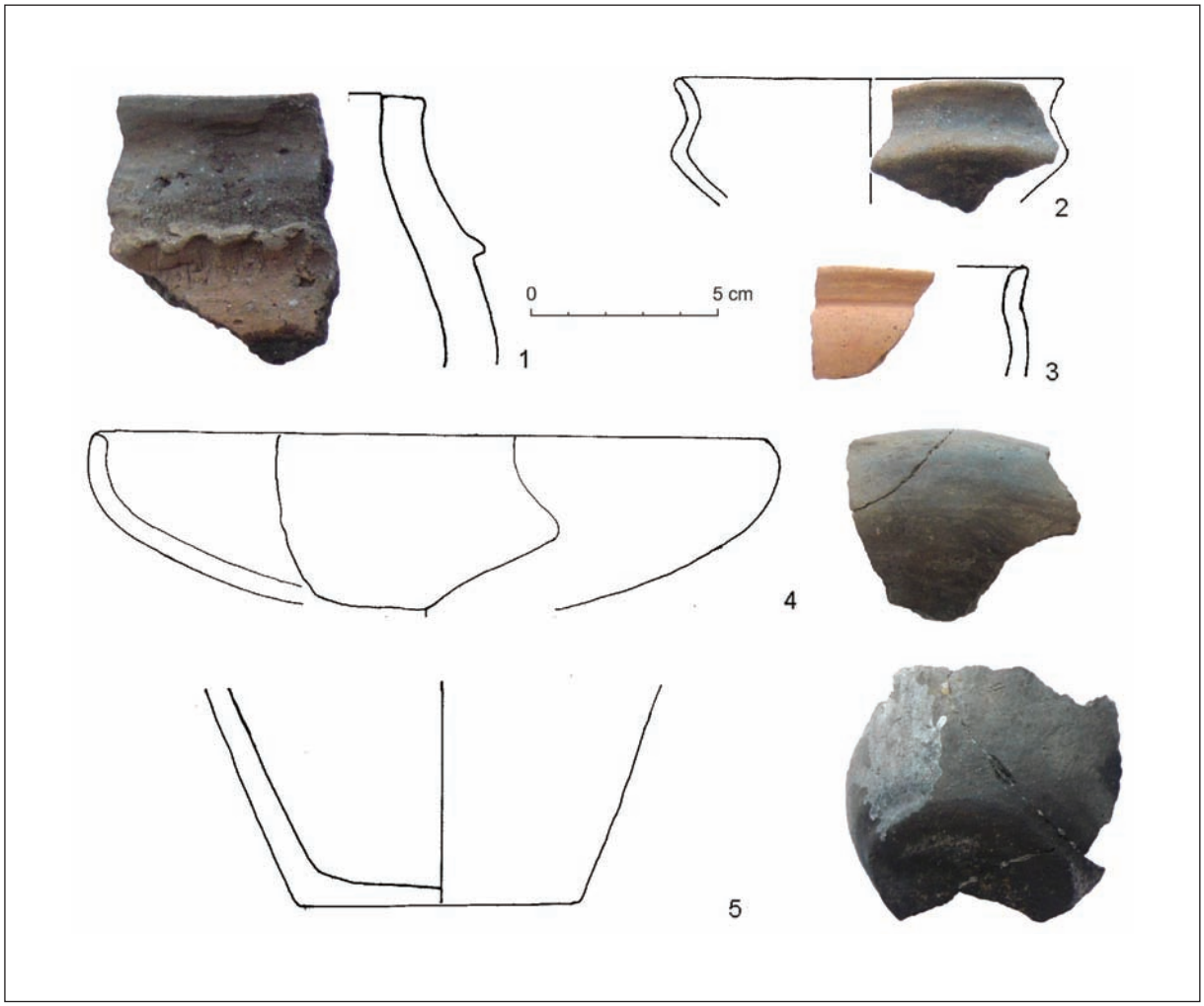

Fig. 4. Pottery, selected finds from Stupava-Devínske Jazero (photo: K. Elschek, drawings: P. Cingel).

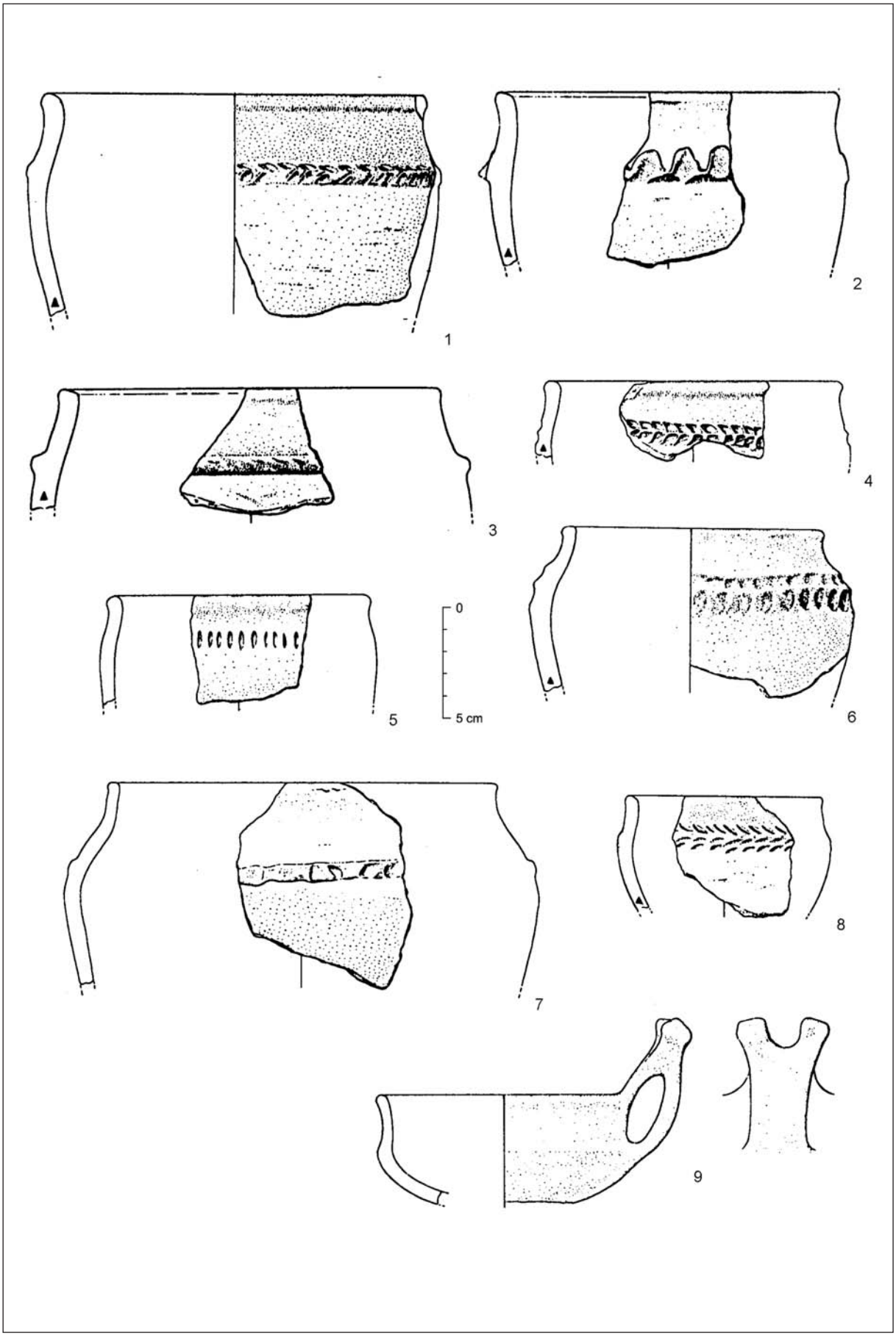

Fig. 5. Pottery, selected finds from Bratislava-Dúbravka (drawings: P. Cingel).

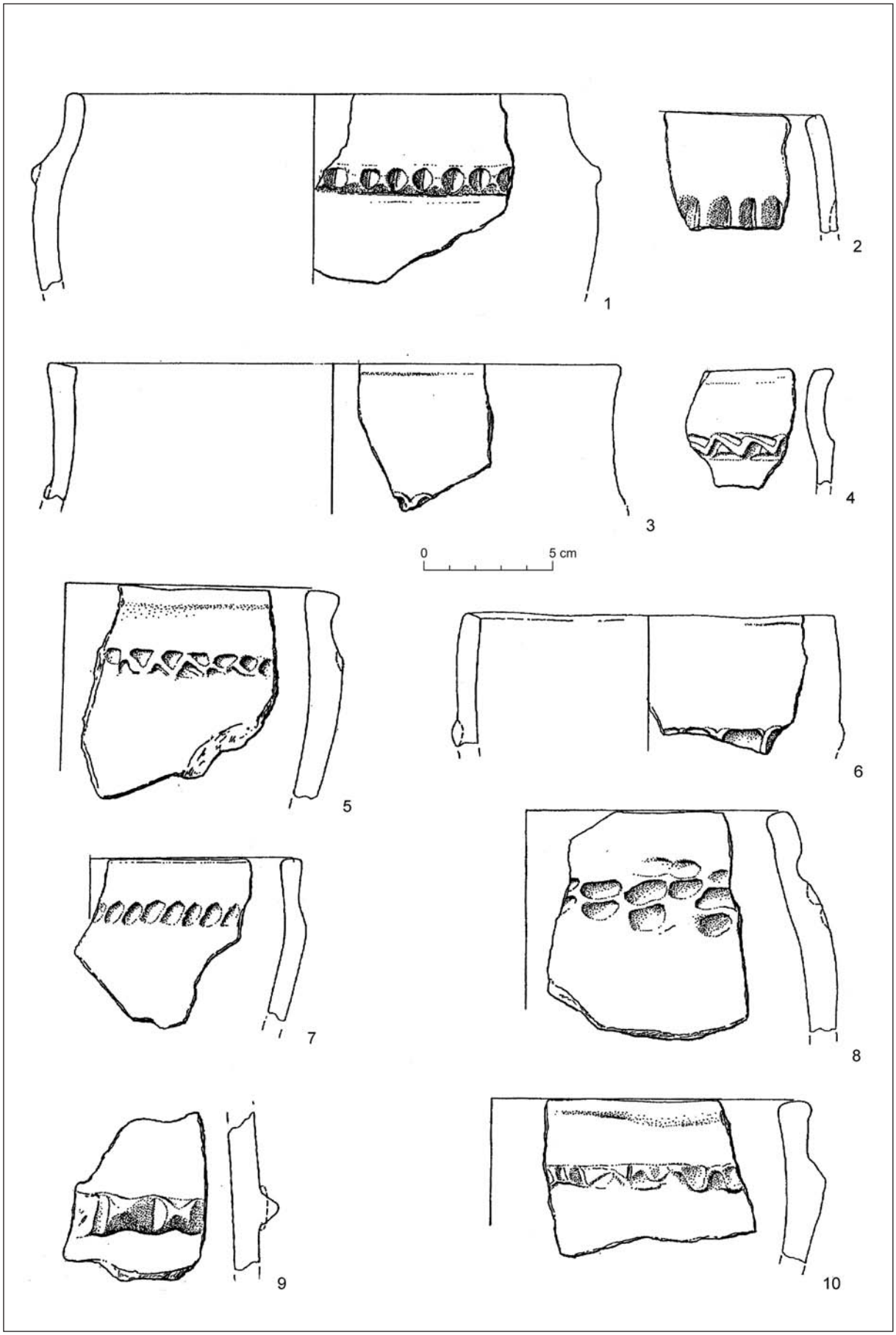

Fig. 6. Pottery, selected finds from Trnava-Horné Pole (drawings: P. Cingel, nach Bartík, Březinová 1996).

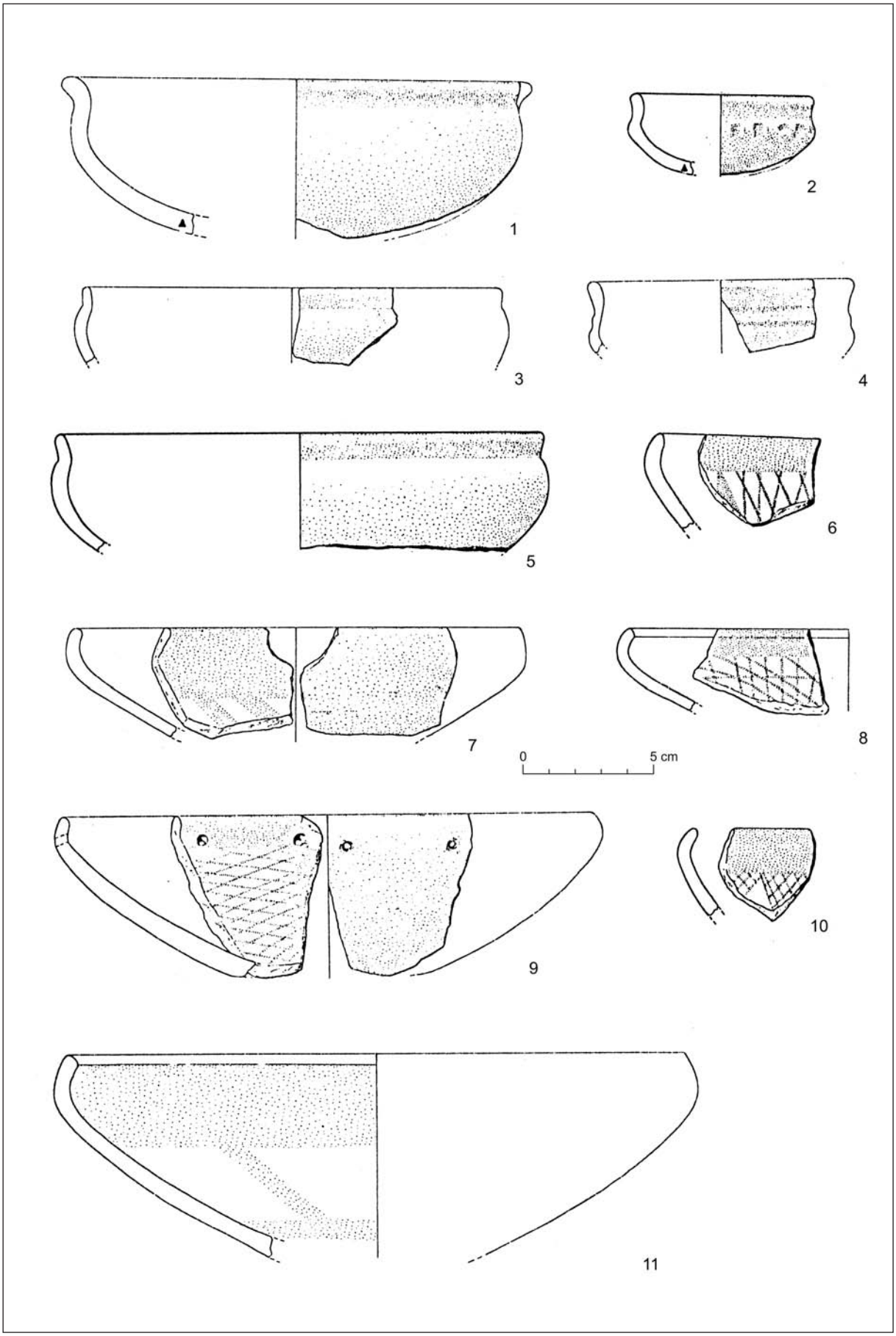

Fig. 7. Pottery, selected finds from Bratislava-Dúbravka (drawings: P. Cingel, nach Bartík, Březinová 1996).

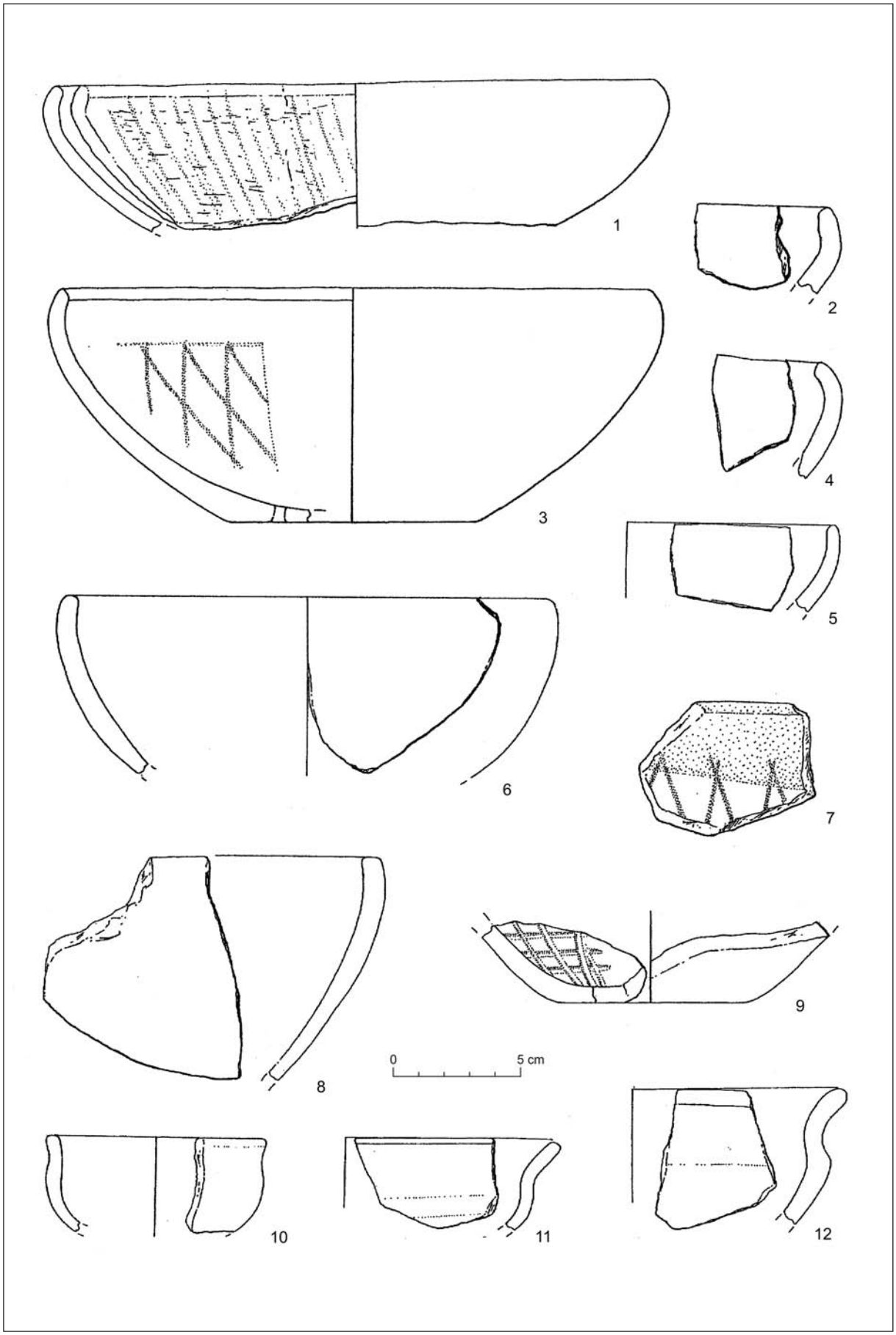

Fig. 8. Pottery, selected finds from Trnava-Horné Pole (drawings: P. Cingel).

M. KARWOWSKI – B. KOMORÓCZY – P. C. RAMSL (EDS.)
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THE NORTHERN SLOVAKIAN REFUGE PLACES AND THE BEGINNING OF THE LA TÈNE PERIOD IN THE NORTHERN PART OF THE WESTERN CARPATHIANS

KAROL PIETA – PETER BARTA – LUCIA BENEDIKOVÁ

Abstract: Refuge places in the Slovakian part of the Western Carpathians represent the specific phenomenon of the time from the Late Hallstatt to the Early La Tène period. They are distributed in the Liptov, Orava and Turiec regions. Through their material culture (pottery as well as metal items) they can be related to other (types of the) sites in the aforementioned and also in other regions of northern Slovakia and so they belong to one of the crucial elements of a given time and space. They contribute to solving the issue of the transition from the Hallstatt to the La Tène period in northern Slovakia. Other regions of the territory investigated have to date yielded only isolated metal finds that can contribute to but cannot solve the topic under discussion. The local cultural phenomenon of the so-called *Vorpúchov-Stufe*, indisputably defined only for the Liptov region, already represents a clear manifestation of locally transformed La Tène Culture in the northern part of the Western Carpathians. Continuity of Hallstatt and La Tène cultural development within the given territory can still not be proved, but is detectable in the material culture, especially in the area of distribution of the *Vorpúchov-Stufe*. Two existing radiocarbon dates cannot reliably contribute to understanding the transition to and formation of the La Tène Culture in the northern part of the Western Carpathians.

Keywords: Refuge places, northern Slovakia, Western Carpathians, Hallstatt period, Early La Tène period, *Vorpúchov-Stufe*, radiocarbon dating, continuity *vs.* hiatus

INTRODUCTION

Refuge places (retreats) represent a specific phenomenon in the settlement structure of the Western Carpathians (northern and central Slovakia) at the end of the Hallstatt development in this area. A trigger for researching them, for further study of their archaeological context, and, at the same time, for research into the end of the Hallstatt period and the beginning of the La Tène period in this area was the field activities in the Liptov basin, ongoing from the end of the 70s of the last century.[1] Since then, the source base relevant for the researched set of issues, has been extended quantitatively (but disproportionally given the time which passed since the first field activities), but its qualitative aspect still remains on the level of a primary field survey and has only limited informative value for solving the nuances of the cultural relations and chronology within the given territory. However, based on the available sources it is possible to trace the important features and basic characteristics of the cultural-social environment in the northern part of the Western Carpathians.

In the article we will address the sources from the mountainous areas of central and northern Slovakia (the regions of Orava, Liptov, the middle Váh basin – north of the town Trenčín –, Kysuce, Turiec, the upper Nitra basin and Spiš;[2] Fig. 1 and Tab. 1) from the time interval following a recognisable peak in occupancy in around the first half of the Hallstatt period, which was concluded during the Younger Hallstatt period (Ha C2 or Ha D1),[3] until the beginning of the so-called *Vorpúchov-Stufe* (pre-Púchov stage), based on the current knowledge formed during the Early La Tène period in the Liptov region (LT B2).[4] It is, therefore, a period of *c.* 70–200 years (if we consider the year 520 BC[5] as the end of the stage Ha D1 and the year

[1] PIETA 1981, 53–66. – PIETA 1983, 39–49.

[2] Cultural development in Spiš differs during the Hallstatt period from the other areas of territory in the northern part of the Western Carpathians which have been studied, but in the La Tène period it joins the area of the so-called *Vorpúchov-Stufe* and later the Púchov Culture, therefore we included it in our article. – Cf. PIETA 1982, 13–19, 214–219. – BENEDIKOVÁ 2014a, 9–10.

[3] BENEDIKOVÁ 2006, 252–287.

[4] PIETA 1982, 156–158. – PIETA 2000, 339–340. – PIETA 2008, 33–34. The cultural development in the Slovakian Western Carpathians during the Early and Middle La Tène period has been addressed in detail recently by L. BENEDIKOVÁ and K. PIETA (2020, 383–411). However, present paper works with chronological and cultural paradigma about *Vorpúchov-Stufe* based on the state of art in 2014 when the paper was presented at the conference "Kelten 2014" and submitted in print. The Fig. 6 and 8 from this paper were published with modifications in the paper mentioned above and depicted finds were also mentioned there with reference on here presented article in preparation, however. On the contrary, some changes were made also in here presented text and several references were added to the present paper during the last proof-readings in 2021.

[5] After TERŽAN 2008 (2010), Fig. 42. – We use Ha D1 here instead of *Schlangenfibelstufe* as applied for Lower Carniola.

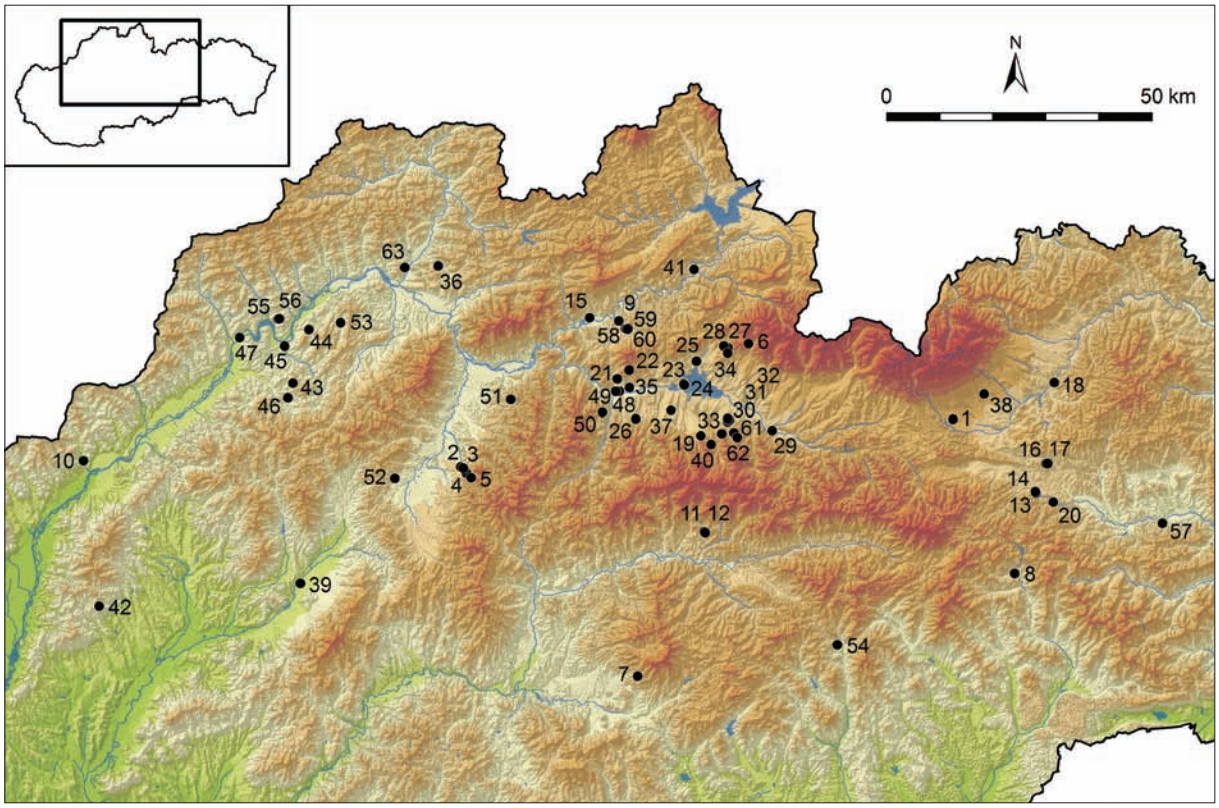

Fig. 1. Late Hallstatt to Early La Tène period finds in the Slovak part of the north of the Western Carpathians (as known in 2014; cf. Tab. 1; map by L. Benediková and M. Bartík).

Site Nr.	Location	Cadaster	Site	District	Site type	References
0	"Liptau"	–	–		IF?	Károlyi 1968, 94, 95, 98 and Pl. 27/8. – Pieta 2000, 337 and Fig. 14/4.
0	"Turiec"	–	–		IF?	Schaaff 1973, 94–96. – Zachar 1987, 161. – Pieta 1999, 130–131. – Pieta 2000, 337 and Fig. 14/7.
1	Batizovce	–	Romanesque Church	Poprad	C	Budinský-Krička 1965, 167–176. – Pieta 2000, 337, 339.
2	Blatnica	–		Martin	H?	Pulszky 1880, 160 and Pl. XXV. – Pieta 2000, 337 and Fig. 14/5, 6.
3	Blatnica	–		Martin	IF	Pieta 2008, Fig. 2/1
4	Blatnica	–	Plešovica	Martin	H	Gallus, Horváth 1939, 20–24 and Pl. XXII–XXXII. – Bazovský 2003, 185–186.
5	Blatnica	–	Rovná	Martin	R	Pieta 1999, 131. – Pieta 2012, 315–324. – Pieta 2014, 125–165.
6	Bobrovec	–	Mních	Liptovský Mikuláš	R	Pieta 1980b, 211–212. – Pieta 1983, Fig. 1.
7	Detva	–	Kalamárka	Detva	HF	Šalkovský 2001, 39–58. – Šalkovský 2002, 99–126.
8	Dobšiná	–	–	Rožňava	IF	Novotná 1984, Pl. 58/356.
9	Dolný Kubín	Medzih-radné	II / Medzihradská Str.	Dolný Kubín	C	Čaplovič 1961a, 334–348, 365–366. – Čaplovič 1977. – Čaplovič 1987, 83–91.
10	Drietoma	–	Intravilan	Trenčín	G	Pieta 2000, 339 and Fig. 15.
11	Horná Lehota	–	Hrádok	Brezno	HF	Máceľová 1992, 92. – Pieta, Mosný 1996, 140–142. – Pieta, Mosný 2000, 104–105. – Pieta, Mosný 2001, 160–161. – Pieta, Mosný 2002, 161–162.
12	Horná Lehota	–	Pod Hrádkom	Brezno	S	Máceľová 1992, 92. – Pieta, Mosný 1996, 140–142. – Pieta, Mosný 2000, 104–105. – Pieta, Mosný 2001, 160–161. – Pieta, Mosný 2002, 161–162.

Site Nr.	Location	Cadaster	Site	District	Site type	References
13	Hrabušice	–	Zelená hora	Spišská Nová Ves	HF	Miroššayová 1992, 134. – Information M. Slivka.
14	Hrabušice	–	Pod Zelenou Horou	Spišská Nová Ves	S, H	Javorský 1982, 117. – Miroššayová 1983, 165–166. – Miroššayová, Javorský, Mihok, Hollý 1991, 71–97.
15	Istebné	–	Hrádok	Dolný Kubín	HF, H	J. P. 1899, 154–158. – Kubínyi 1902, 342–345. – Petrikovich 1903, 1–2. – Čaplovič 1957, 777–784. – Čaplovič 1959, 65–75. – Čaplovič 1963, 297–327. – Novotná 1970, 98–99. – Miroššayová 1975/II, 13–20. – Čaplovič 1987, 127–138, 161–163.
16	Jánovce	Macha-lovce	Hradisko	Poprad	HF	Miroššayová 1992, 134.
17	Jánovce	Macha-lovce	Pod Hradiskom	Poprad	S	Soják 2000a, 149–150. – Soják 2002, 183–184.
18	Kežmarok	–	Jeruzalemberg	Kežmarok	HF	Miroššayová 1975/II, 21–23. – Budinský-Krička 1977, 66. – Miroššayová 1992, 134.
19	Lazisko	–	Zvon	Liptovský Mikuláš	HF	Pieta, Hanuliak 1988, 111–112. – Pieta 1991, 79–80.
20	Letanovce	–	Čertova diera	Spišská Nová Ves	S	Bárta 1958, 471–476, 494–495. – Miroššayová 1992, 134. – Soják 2000b, 119–120. – Miroššayová 2003, 357–378. – Soják 2003, 132–142.
21	Likavka	–	Likavský hrad	Ružomberok	HF	Kovár 2003.
22	Likavka – Martinček	–	Predný Choč (west summit)	Ružomberok	R	Pieta 1983, Fig. 1.
23	Liptovská Sielnica	Liptovská Mara	II / Rybníky	Liptovský Mikuláš	S	Pieta 2000, 325 and Fig. 5/26–31.
24	Liptovská Sielnica	Liptovská Mara	III / Za panskými humny	Liptovský Mikuláš	S	Pieta 1996, Pl. I/1, 4.
25	Liptovská Sielnica	–	Sielnický hrad	Liptovský Mikuláš	HF/R	Miroššayová 1975/II, Tab. 38/4. – Miroššayová 2003, 357–378. – Pieta 1983, Fig. 1. – Information K. Pieta.
26	Liptovská Štiavnica	–	Lúčny hríb	Ružomberok	HF?	Pieta 1970, 116–118. – Pieta 1983, Fig. 1.
27	Liptovské Matiašovce	–	Unnamed hill above Liptovský Trnovec-Priehonisko / Konislava / Konislavy	Liptovský Mikuláš	HS/HF	Pieta, Benediková Survey 2005. – Pieta Survey 2010.
28	Liptovské Matiašovce	–	Dúpnica	Liptovský Mikuláš	S?	Struhár 2009, 77.
29	Liptovský Hrádok	–		Liptovský Mikuláš	C	Majláth 1873, 52 and Figs. 7, 8.
30	Liptovský Mikuláš	Ploštín – Iľanovo	Rohačka	Liptovský Mikuláš	HF	Miroššayová 1975/II, 37–39. – Pieta 1983, 39–49.
31	Liptovský Mikuláš	Ploštín – Iľanovo	Hrádok	Liptovský Mikuláš	HF	Miroššayová 1975/II, 37–39. – Pieta 1983, 39–49.
32	Liptovský Mikuláš	Ploštín	Pod Rohačkou	Liptovský Mikuláš	S	Miroššayová 1975/II, 39–45. – Pieta 1983, 39–49. – Šimková 2004, 185–187.
33	Liptovský Mikuláš – Demänovská Dolina	Ploštín	Demänovská Poludnica / Demänovská hora	Liptovský Mikuláš	R	Pieta 1980a, 165–167. – Pieta 1981, 53–66. – Pieta 1983, Fig. 1.
34	Liptovský Trnovec	–	Priehonisko / Konislava / Konislavy	Liptovský Mikuláš	Br	Miroššayová 1975/II, 31–32. – Pieta 1970, 118. – Pieta 1981, 58–61 and Fig. 5. – Benediková, Pieta 2005.
35	Lisková	–	Liskovská jaskyňa	Ružomberok	S	Struhár 2009, 77 and Fig. 7/1.
36	Lopušné Pažite	–	Podhuboč – Zárečie	Kysucké Nové Mesto	S	Šedo 1980, 201–204. – Šedo 1981–82, 33.
37	Malatíny	–	Nebental von Ľupčianka – Belátal/ Kolárova	Liptovský Mikuláš	IF	Paulík 1965. – Pieta 1970, 119–120. – Miroššayová 1975/II, 35–36. – Pieta 1983, Fig. 1.

Site Nr.	Location	Cadaster	Site	District	Site type	References
38	Nová Lesná	–	Pieskovisko / Piesková baňa / Hliník	Poprad	S	Miroššayová 1992, 134. – Pieta 2003, 150 and Fig. 1.
39	Nováky	–	–	Prievidza	IF	Novotná 1991, 71–73.
40	Pavčina Lehota – Demänovská Dolina	-–	Na jame	Liptovský Mikuláš	R	Pieta 1983, Fig. 1.
41	Podbiel	–	I/Za Bielym	Tvrdošín	C	Čaplovič 1968, 177–203. – Čaplovič 1987, 75–80
42	Podhradie	–	Úhrad	Topoľčany	IF	Nešporová 2003, 101–102.
43	Podskalie	–	Podskalský Roháč	Považská Bystrica	HF	Information K. Pieta, J. Somr.
44	Považská Bystrica	Považská Teplá	Malý Manín	Považská Bystrica	HF	Pieta 2008, Fig. 2/10, 12.
45	Považská Bystrica	–	–	Považská Bystrica	IF	Pieta 2000, Fig. 14/15.
46	Pružina	–	Michalová	Považská Bystrica	H, IF	Kolníková 2003, 234. – Pieta 2012, 317–320.
47	Púchov	–	–	Púchov	IF?	Pieta 2000, 337 and Fig. 14/16. – Information K. Pieta.
48	Ružomberok	–	Mních	Ružomberok	HF	Miroššayová 1975/II, 57–62 and Tabs. 2, 5. – Pieta 1983, Fig. 1.
49	Ružomberok	–	Pod Mníchom I	Ružomberok	S	Miroššayová 1975/II, 58–62.
50	Ružomberok	–	Sidorovo / Hýrová / Žiar / Pražma	Ružomberok	R	Pieta 1983, Fig. 1.
51	Sklabinský Podzámok – Turčianska Štiavnička	–	Katova skala	Martin	HF, H	Pieta 2008, Fig. 2/7.
52	Slovenské Pravno	–	Prašnica / Lamošova Prašnica	Turčianske Teplice	S?	Megaw 1982, 7–34. – Kolník, Šalkovský 1983, 133–147.
53	Súľov	–	Dolinky	Bytča	H	Petrovský-Šichman 1965, 71. – Miroššayová 1975/II, 6.
54	Tisovec	–	Hradová	Rimavská Sobota	HF	Hutka, Bartík 2008, 19–20. – Bartík, Čambal 2014, 95–101.
55	Udiča	–	Klapy / Klape	Považská Bystrica	R	Pieta 2006, 135.
56	Udiča	–	foot of Klapy	Považská Bystrica	S	Pieta 2006, 135.
57	Vítkovce – Olcnava	–	Tureň	Spišská Nová Ves	IF	Miroššayová, Javorský 1986, 663–665.
58	Vyšný Kubín	–	Tupá skala	Dolný Kubín	HF	Čaplovič 1961b, 367–375. – Čaplovič 1963, 297–327. – Čaplovič 1964, 781–789. – Čaplovič 1987, 110–127.
59	Vyšný Kubín	–	Ostrá skala	Dolný Kubín	HF/R	Čaplovič 1976, 78–82. – Čaplovič 1987, 126–127, 197–207.
60	Vyšný Kubín	–	foot of Ostrá skala	Dolný Kubín	S	Čaplovič 1987, 126–127, 198–200.
61	Závažná Poruba	–	Končistý / Končitý vrch	Liptovský Mikuláš	R	Pieta 1983, Fig. 1.
62	Závažná Poruba – Liptovský Ján	–	Iľanovská Poludnica	Liptovský Mikuláš	R	Pieta 1981, 53–66. – Pieta 1983, Fig. 1.
63	Žilina	Vranie	Rochovica	Žilina	HF	Pieta 2012, 321–322.

Tab. 1. List of the Late Hallstatt to Early La Tène period finds in the Slovak part of the north of the Western Carpathians (cf. Fig. 1; after Benediková 2006, 298–309, with additions and corrections). S – settlement, HF – hillfort, R – refuge place, C – cemetery, Br – barrow, H – hoard, IS – isolated find.

320/310 BC[6] as the beginning of the stage LT B2 or the year 450 BC as the beginning of LT A). Within this time interval several cultural changes occurred as well as changes in the settlement structure: 1. At first a quantitative and qualitative change in the settlement structure is noticeable sometime during the Younger or at the beginning of the Late Hallstatt period (decrease in the settlement intensity of the given territory – all the regions except Spiš, abandonment of several locations, establishment of new settlements or burial grounds, overall decrease in the number of sources), which is probably closely associated with the qualitative cultural changes in the immediate neighbouring areas of the eastern Hallstatt Culture,[7] or the Vekerzug Culture (concerns the region of Spiš where, in contrast to the rest of territory under investigation, an increase in the number of sources occurs at the beginning of the Late Hallstatt period[8]); 2. Another change (the character of which is more difficult to specify further) took place sometime in the Early La Tène period (LT A, or LT B), apparently under the influence of first elements, and possibly of the La Tène culture bearers themselves (again except for Spiš); 3. The last change within the studied time frame occurred during the LT B – LT C1 stage, when, under a constantly intensifying influence of the La Tène Culture, the new regional settlement structure was established and developed.[9]

Despite the time having passed from the end of an intensive occupancy by the Lusatian Culture in the Younger Hallstatt period until the beginning of the La Tène Culture and an almost complete lack of sources and sites from this time in the given area, it is possible to trace strong traditions of the previous Hallstatt development in the material content of the Early La Tène Culture (in the pottery ornamentation, costume habits, settlement architecture and so on).[10] Also, in connection with the strong traditionality of this territory, it is extremely interesting to monitor the process of transition from the Hallstatt into the La Tène period and to specify the time period for the turn of these two cultural eras, which is also characterized by refuge places, present in extreme mountainous locations of central and northern Slovakia.

Within the given space and time, the character of sources of the material culture, most of which is only broadly dated from the Late Hallstatt period till the end of the Early La Tène period (LT B; see below), is problematic. In the article we only deal with those finds which with certainty, or at least with some degree of probability, belong to the La Tène period, i.e. finds with the stated broad dating, and also those finds which clearly belong to the Early La Tène period. While solving issues of the beginning of La Tène period in the northern part of the Western Carpathians, the absolute data from the given area could possibly help, namely, those which are available specifically from the refuge place Demänovská Poludnica in the cadastres of Liptovský Mikuláš-Ploštín and Demänovská Dolina (see below) and from the *Vorpúchov-Stufe* settlement (from both its beginning and end) in Liptovská Sielnica-Liptovská Mara II (see below) and which we will review in the following text in context with the accessible archaeological sources.

The objective of this article is to try to answer these questions:

1. When was the Hallstatt development concluded in the northern part of the Western Carpathians, i.e. in the mountainous regions of central and northern Slovakia? We assume that the analogous material culture on burial grounds and hillforts in Orava and in the settlement areas with the refuge places in Liptov represents this period.
2. When do we encounter the first monuments of the La Tène culture in northern and central Slovakia? The chronology of the beginning of the so-called *Vorpúchov-Stufe* in Liptov is related to that.
3. How do the accessible absolute data contribute to the issue of the beginning of the La Tène development in central and northern Slovakia?
4. Is there an archaeologically definable continuity or hiatus between the end of the Hallstatt development and the beginning of the La Tène occupation?

ARCHAEOLOGICAL FACTS

Refuge Places in the Northern Part of the Western Carpathians

One of the most interesting phenomena (not only) in the Late Hallstatt period or in the Early La Tène period are the refuge places, situated on hardly accessible hills in extremely high upland locations. So far they are known from Liptov, Turiec and from the middle Váh basin (the site of this character in the Kysuce region is older). Finds from them correspond with those from Orava and Spiš; consequently, we are able to identify a cultural and historical coherence during the given time period over a relatively large area.

Refuge places were in most cases a part of larger settlement areas, which, in an ideal case, consisted of a settlement, a hillfort to which the settlement belonged and a refuge place, which served as the last retreat of inhabitants in time of danger, from the two types of residential areas listed above.[11] To these "complete" settlement areas belongs a model example

[6] See e.g. Venclová et al. 2008, Tab. 1. – Bujna, Pieta in prep.

[7] See e.g. Teržan 1998, 518–519.

[8] Benediková 2006, 197–209.

[9] Benediková, Pieta 2020, 383–411.

[10] Pieta 1982, 156–160, 214–217. – Bujna 1994, 12.

[11] Pieta 1981, 53–66. – Pieta 1983, 39–49. Benediková et al. 2019, 51–88. – Furman, Benediková, Šimková 2019, 76–83.

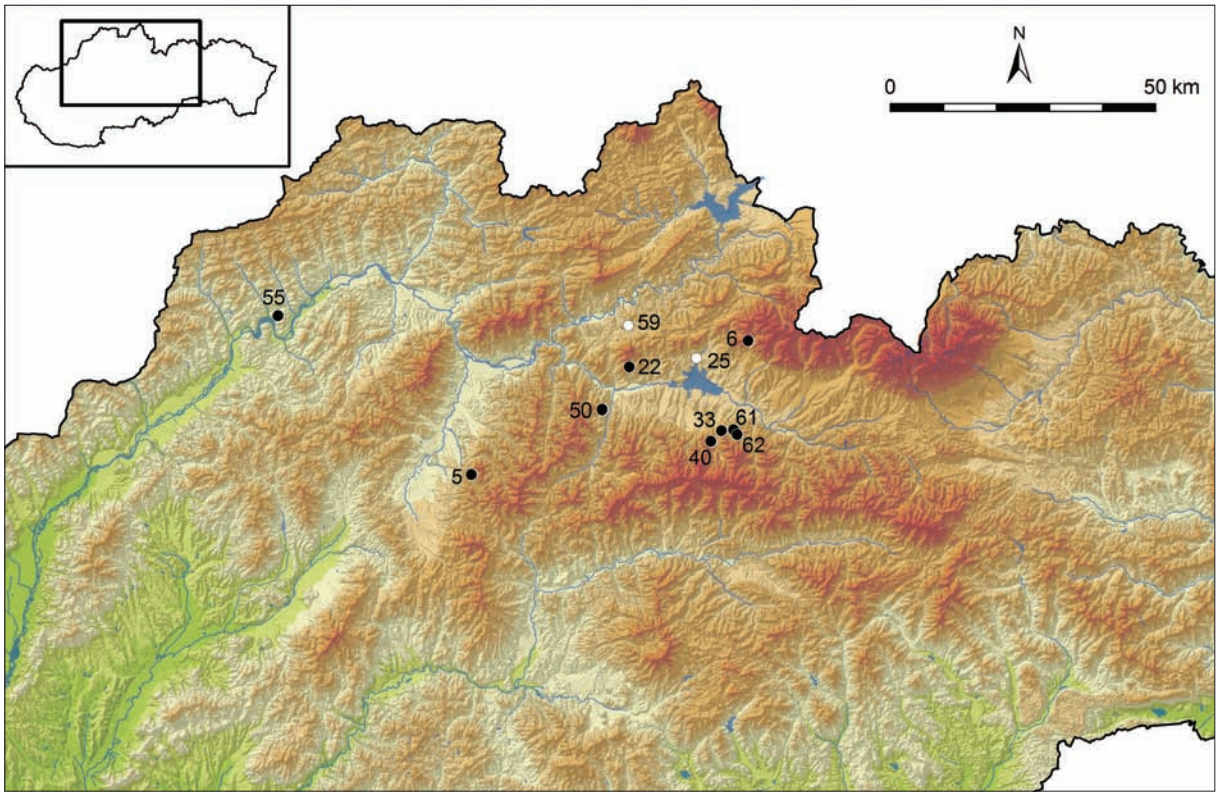

Fig. 2. Refuge places in the Slovakian part of the north of the Western Carpathians. ● certain refuge places, – ○ uncertain refuge places (map by L. Benediková and M. Bartík).

near Liptovský Mikuláš in Liptov. It consists of the settlement of Pod Rohačkou in the cadastral area of Liptovský Mikuláš-Ploštín, the hillfort Rohačka in the cadastral area of Liptovský Mikuláš-Iľanovo and Liptovský Mikuláš-Ploštín, on which piedmont the settlement is situated, and of the refuge place in the location Demänovská Poludnica (or Demänovská hora) in the cadastral area of Demänovská Dolina and Liptovský Mikuláš-Ploštín, located 1305 m asl. From the hillfort on Rohačka the refuge place is accessible via the long ridge stretching to the south, deeper into the massif of the Low Tatras.[12] The top plateau is well protected by rock faces; traces of an artificial fortification have not been identified.[13] On the platform of the rocky hill above the mouth of Demänovská valley, during the test archaeological research in 1974–1979, abundant finds of pottery, burnt sandstone plates, granite pebbles, human and animal bones and a quantity of palaeobotanical material (common wheat/*Triticum aestivum*, wheat/*Triticum* sp., barley/*Hordeum vulgare*, pea/*Pisum sativum* L., lentil/*Lens esculenta* MOENCH, faba bean/*Faba vulgaris* MOENCH, silver fir/*Abies alba* Mill., Norway spruce/*Picea abies* L., European larch/*Larix decidua* L., common yew/*Taxus baccata* L., pine/*Pinus* sp. L.) were obtained.[14] Large amounts of finds and the layer itself bear traces of fire.[15] From other settlement areas, where the combination of settlement, hillfort and refuge place is documented, for the Late Hallstatt period and/or the Early La Tène period, we can mention the settlement area in Blatnica in Turiec with the refuge place on the hill Rovná, the hillfort on the hill Plešovica and the settlements on its piedmont.[16] At other locations refuge places are documented, for which, to date, the entire settlement background is not known, e.g. in the middle Váh basin there is the settlement area around Jasenica and Udiča with the refuge place on the hill Klapy and with settlements on its piedmont.[17] The affiliation of several refuge places in Liptov to a particular settlement area is questionable, e.g. a refuge place at the location Predný Choč on the boundary of the cadastral area of Likavka and Martinček, which could be related to the settlement area on Mních and under Mních in Ružomberok, to the settlement area in Likavka – hillfort on castle hill together with settlement Predný lán – or to the hillfort Lisková-Konislav.[18] From the Liptov region we know

[12] Pieta 1980a, 165–167. – Pieta 1981, 53–66. – Pieta 1983, 39–49. – Šimková 2004, 185–187. – Benediková 2008, 34–36.

[13] Pieta 1983, 40.

[14] Hajnalová 1979, 456. – Hajnalová 1980, 79. – Hajnalová 1981, 161–175. – Pieta 1983, 40. – Hajnalová 1993, 114.

[15] Pieta 1983, 40.

[16] Pieta 2012, 316–317. – Pieta 2014, 125–165.

[17] Moravčík 1988, 90. – Veliačik, Moravčík 1992, 100. – Pieta 2006, 134 and Fig. 1.

[18] Pieta 1981, 53–66. – Pieta 1983, 39–49. – Pieta 1999, 130–131. – Pieta 2014, 125–165.

other refuge places as well; however, they so far stand in isolation within the archaeological landscape – without related sites within a single settlement area (see below).

A geographical characteristic of the refuge places can be generalized for this type of site in Liptov, where the most analogous sites have been documented so far. Sites with the character of a refuge are here situated deeper in the mountain massifs, mainly on the peaks of their limestone foothills.[19] These include, for example, the location Mních in Bobrovec, also the fortification Na jame on the boundary of the cadastral areas Pavčina

[19] Pieta 1983, 39–49.

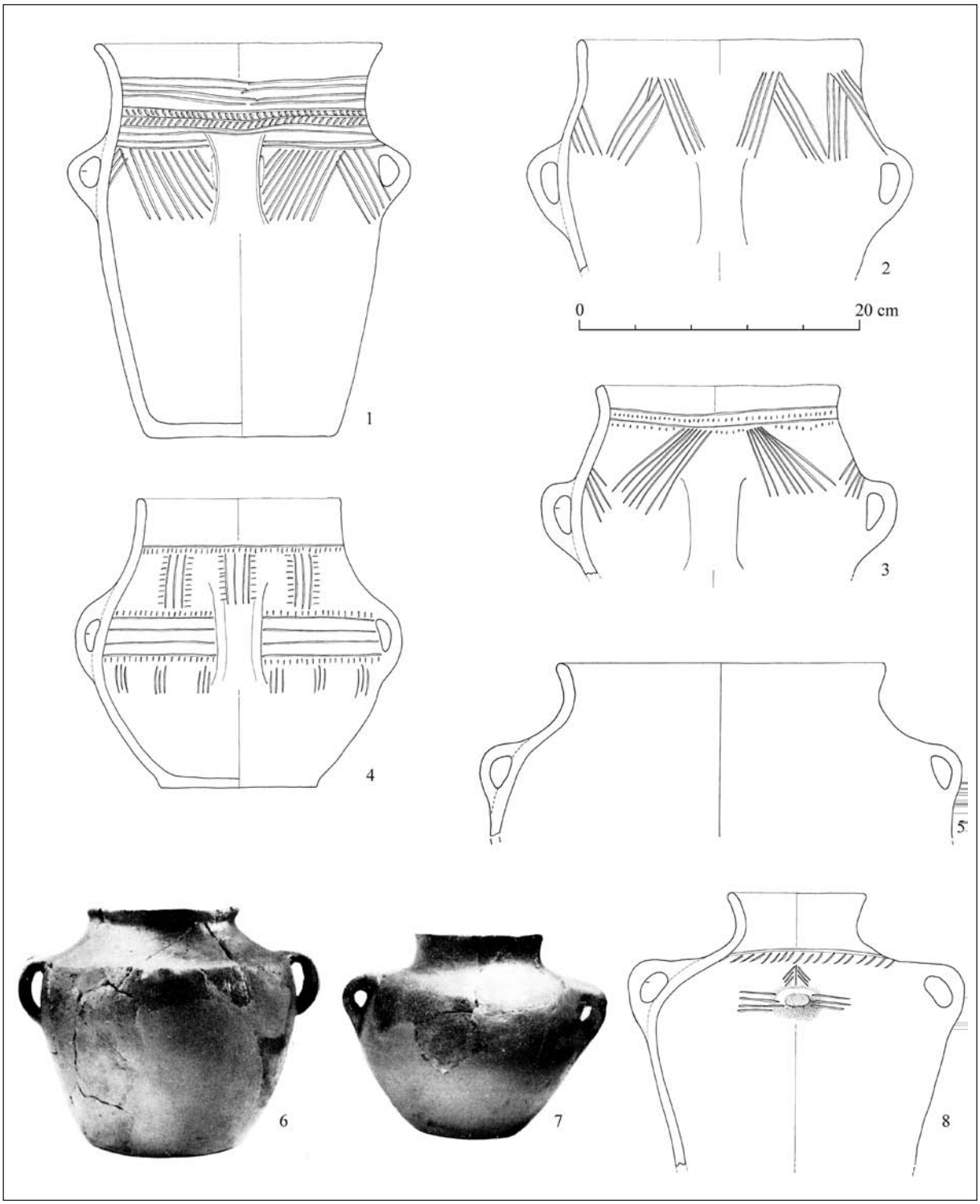

Fig. 3. Local pottery forms from the Orava and Liptov regions (cf. Fig. 4). – 1. T_I/5. – 2. T_I/5A. – 3. T_I/5B. – 4. T_I/6. – 5. S-profiled large forms. – 6. Fl_I/1. – 7. Fl_I/2. – 8. Fl_I/3 (after Benediková 2006, Figs. 28, 31, 54). – Scale valid for 1–5, 8; without scale: 6–7 (after Čaplovič 1977, 177–203).

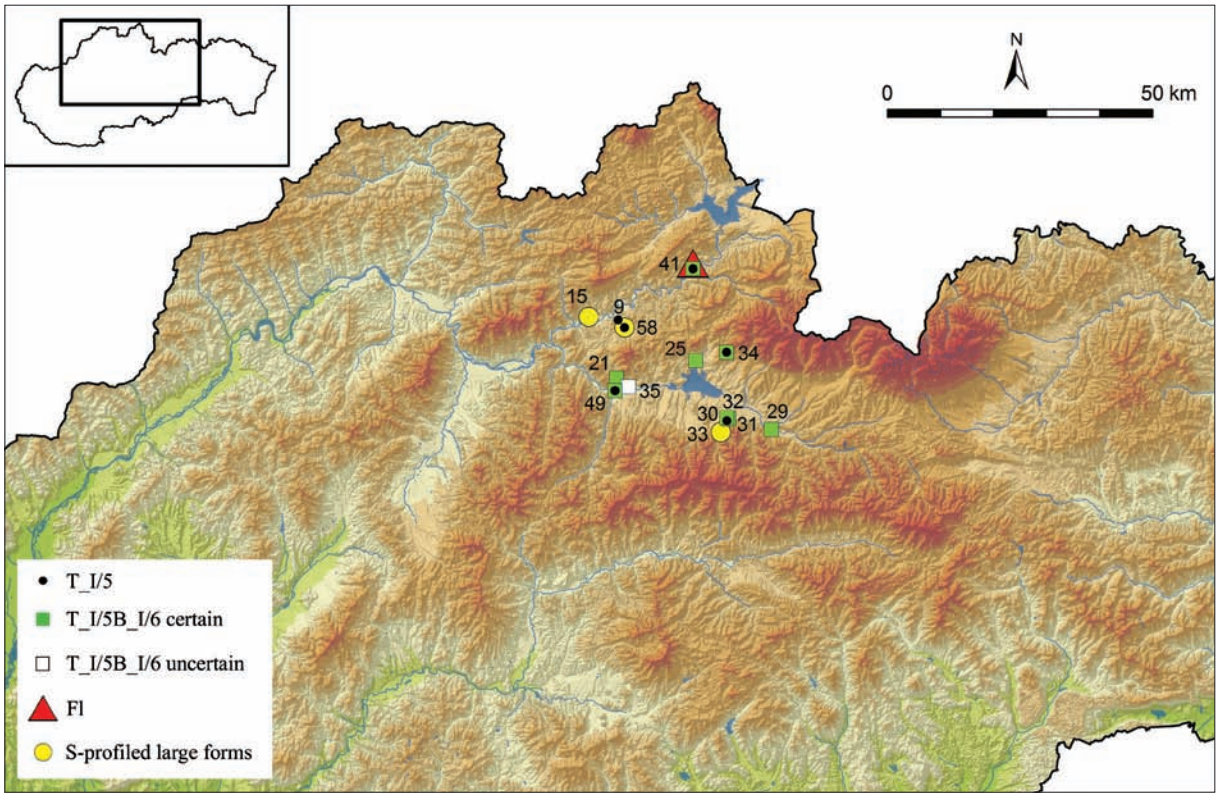

Fig. 4. Distribution of local pottery forms (cf. Fig. 3; map by L. Benediková and M. Bartík).

Lehota and Demänovská Dolina, Iľanovská Poludnica on the boundary of the cadastral areas Závažná Poruba and Liptovský Ján, Končistý/Končitý vrch above Závažná Poruba, Predný Choč on the boundary of the cadastral areas Likavka and Martinček near Ružomberok, or Sidorovo (Hýrová) above Ružomberok.[20] On the other hand, hillforts from the Hallstatt period situated lower down were located on the peaks of hills on the first line of mountain ridges (Mních in Ružomberok, Starhrad in Liptovská Sielnica, Lúčny Hríb in Liptovská Štiavnica and others).[21]

Most of the refuge places were verified only by surveys and small test excavations. Refuge places had an area of 0.5–1 ha. Locations on steep, difficult-to-access cliffs were used, where the natural protection was supplemented in some places by the rampart fortification. Fragments of vessels and metal items were found here; triangular arrowheads, granite pebbles and big river stones served as projectiles for defence purposes. On Demänovská Poludnica, human bones were found, which could testify about the violent demise of this as well as other refuge places.[22] Alike on Demänovská Poludnica, the layers of charred cereals and and legumes were also detected on Predný Choč in Likavka – Martinček and on Končitý vrch in Závažná Poruba.[23] Some of the refuge places (mainly in Liptov) are archaeologically characterized only by a relatively thin cultural layer, which could be evidence of short-term use, which (possibly) preceded the (violent?) demise – if we consider the thickness of a cultural layer as an indicator of the length of utilisation of a particular site.

Important, however, is the fact, that not all the refuge places were used only during a single time horizon (e.g. Demänovská Dolina – Liptovský Mikuláš-Ploštín-"Demänovská Poludnica", Blatnica-"Rovná", Liptovský Ján – Závažná Poruba-"Iľanovská Poludnica").[24] This means that sites from which only atypical materials are recovered (in such cases mostly potsherds) cannot be automatically dated solely to the Late Hallstatt period or to the Early La Tène period based only on their typological assignment to refuge places (Fig. 2).

Pottery and small finds come from the refuge places from the horizon dated to the Late Hallstatt period up to the Early La Tène period (LT A–LT B). The pottery comes exclusively from refuge places in Liptov and through the characteristic shapes we are able to correlate this group in time with other sites in Liptov (the same character of pottery at all three sites within the settlement area near Liptovský Mikuláš and from other refuge places; pottery from the settlement sites; pottery from graves in Liptovský Trnovec) and in Orava (burial ground in Podbiel, hillfort in Istebné

[20] Pieta 1981, 53–66. – Pieta 1983, 39–49.

[21] Pieta 1983, 39–49.

[22] Pieta 1981, 53–66. – Pieta 1983, 39–49.

[23] Pieta 1983, 40.

[24] Pieta 2002, 156–158. – Pieta 2012, 315–317. – Pieta 2014, 125–165.

and in Vyšný Kubín; Figs. 3–4).[25] The metal items found in the refuge places include, for us, interesting finds from the refuge place in Udiča and Rovná in Blatnica, which can be included in the context of analogous finds from other sites (see below).

Finds from the Refuge Places in the Context of Other Sources

The most spectacular and probably the most abundant group of finds are the representatives of the typological category of the pearled rings (*geperlte Ringe/Buckelringe*), which come from several sites in central and northern Slovakia. Within this group of items, minor typological deviations exist, and the pearl rings have a typological continuance in the form of analogous bracelets from later stages of the La Tène period.[26] Pearl rings originate from the settlement areas with refuge places in Blatnica-"Rovná",[27] Blatnica-"Plešovica"[28] and in Udiča-"Klapy" (Fig. 6/21–22);[29] other rings come from the hoard in Istebné-"Hrádok" (Fig. 5a/8, 10, 12–14),[30] the hoard in Pružina-"Michalová" (Fig. 6/20, 24) and from the surroundings of Púchov.[31] Their dating varies from Ha D1 till LT B1.[32]

In the hoard from Istebné rings were named, among others combined with local products – with diadems of the Istebné type (Fig. 5a/1, 3, 4, 6; this type also comes from the Hallstatt period from Blatnica-"Plešovica"[33] and from Dobšiná, located on the southern border of the Spiš region[34]) and with the pins of type Orava (Fig. 5b/11), which, however, taking into consideration their local origin and combination only with chronologically inconclusive items, cannot be dated more precisely than within the range of stage Ha D to LT B1 (other items from this hoard also fail to contribute to its dating).[35] The hoard probably included a fragment of necklace torc, based on its style most likely belonging to the Early La Tène Period (Fig. 5a/9), association of which with the hoard is, however, partially questionable, although basically accepted.[36] The end of the occurrence of pearl rings in LT B1 is likewise not opposed by their combination with two necklace torcs with seal-like ends in the hoard from Pružina (Fig. 6/19, 23) which also have their analogies in inventories from the stage LT B1.[37]

From the settlement areas with refuge places comes also another find from the period of our interest. From Blatnica (unknown location, probably Plešovica or Rovná) an antiquarian find of a bronze fibula of the Early La Tène scheme with a finely profiled foot, which has an almost identical parallel at an unknown site in Liptov (Fig. 6/1), is known.[38] These fibulae have, on the one hand, common morphological features with the wire fibulae (fibulae of the Marzabotto type or Zurich fibulae/*Züricher Fibeln* – the shape of the bow, the size of the spring in proportion to the height of the bow, the foot in the shape of a stylized bird's head), but, on the other hand, they are already approaching the fibulae of the advanced stage LT B1 (by the number of spring coils 3 + 3, and partially also the shape of the bow).[39] They can therefore most probably be dated to the end of stage LT A, or to stage LT B1. In Blatnica at the location Rovná or Plešovica the *Fußpaukenfibel* (Fig. 6/3) was also found,[40] and a similar specimen, but with a broken-off foot was found in Podskalie-"Podskalský Roháč" in the middle Váh valley (Fig. 6/2). Our fibulae can obviously be defined as the variant of Speikern fibulae with a drum-shaped foot, which were dated to the Early La Tène period by T. Stöllner.[41] Even though on fibulae of the Speikern variant, contrary to our two specimens, a decoration occurs on the outer side of the spring, a simply created fibula (analogous to ours) from grave 102 in Dürrnberg also belongs to the Speikern variant.[42] The Speikern variant is, at the same time, the only type of fibula with a drum-shaped foot which is also widespread in the former eastern Hallstatt area.[43] Another fragment of a fibula (without the foot and complete coil) from Blatnica-"Rovná" (Fig. 6/4)

[25] Pieta 1983, 42. – Benediková 2006, 182–186.

[26] Benediková 2004, 93–122. – Benediková 2006, 123–130. – Pieta 2012, 315–324.

[27] Pieta 2012, 315–324.

[28] Gallus, Horváth 1939, 20.

[29] Pieta 2006, Fig. 2/1–3. – Pieta 2012, 315–324: One of the rings from Udiča (Fig. 6/21) was published here as cast ("massive"), however, it is hollow jewellery!

[30] Čaplovič 1987, Tabs. XXXIX, XL. – Last summary about the hoard: Benediková 2006, 119–141.

[31] Pieta 2012, 315–324.

[32] Benediková 2004, 108. – Benediková 2006, 125, 128. – Pieta 2012, 319. – Benediková 2017, 357–360. – Cf. also Stöllner 2002, 85.

[33] Gallus, Horváth 1939, 20–21 and Pl. XXIII/2.

[34] Novotná 1984, Pl. 58/356.

[35] Cf. Novotná 1980, 164–166. – Cf. Novotná 1984, 59. – See also footnote 29.

[36] Pieta 2000, 337, with references. – Benediková 2006, 122.

[37] See e.g. Möller 2000, Figs. 4–7. – For analogous bracelets, both with parallels among necklace torcs cf. also Ramsl 2002, 61, 63 and Figs. 56/1003-4, 57/1003-8, 9.

[38] Károly 1968, 95 and Pl. 27/8. – Pieta 2000, 337 and Fig. 14/4–5.

[39] E.g. the type BF-A2 from LT B1c according to Bujna 2003, 46–48, 83–84 and Figs. 5, 7, 62. – Cf. e.g. also analogous brooches from the burial ground in Mannersdorf: Ramsl 2011, 202–206 and Figs. 113/60-6, 127-2c. – On wire brooches, see below.

[40] Pieta 2008, Fig. 2/1.

[41] Stöllner 2002, 68–70. – Even H. Parzinger depicts an analogous specimen among the forms NW FLtIa/b, which correspond to his horizon 9 and 10, therefore to the stage LT A: Parzinger 1988, 86–87, 125 and Pl. 64/7.

[42] Stöllner 2002, Fig. 29.

[43] Stöllner 2002, Fig. 28.

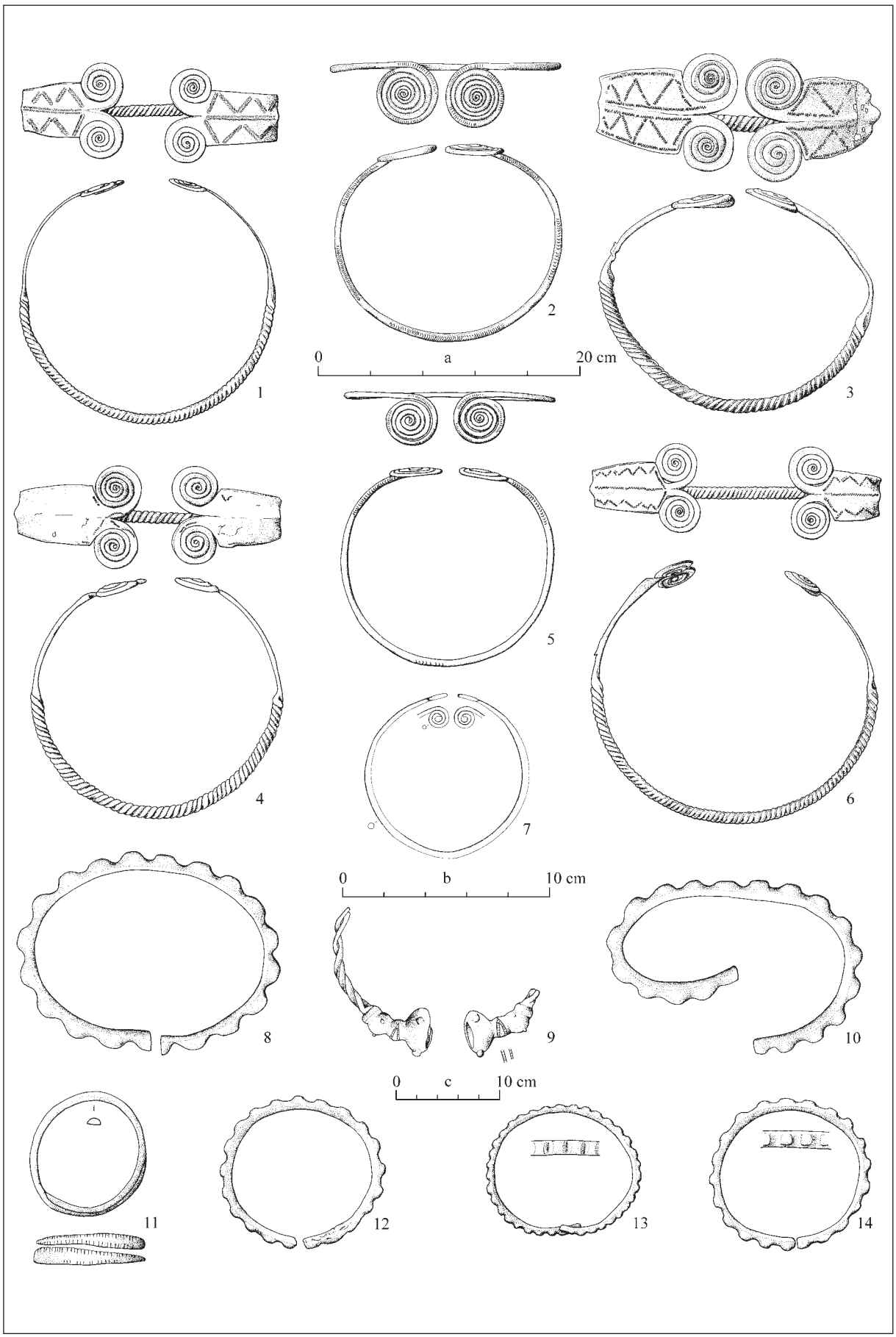

Fig. 5a. Istebné-"Hrádok", bronze hoard (cont. on Fig. 5b). – Scale a: 1–6, 9, scale b: 8, 10, 11–14, scale c: 7 (redrawn after Miroššayová 1975. – Novotná 1984).

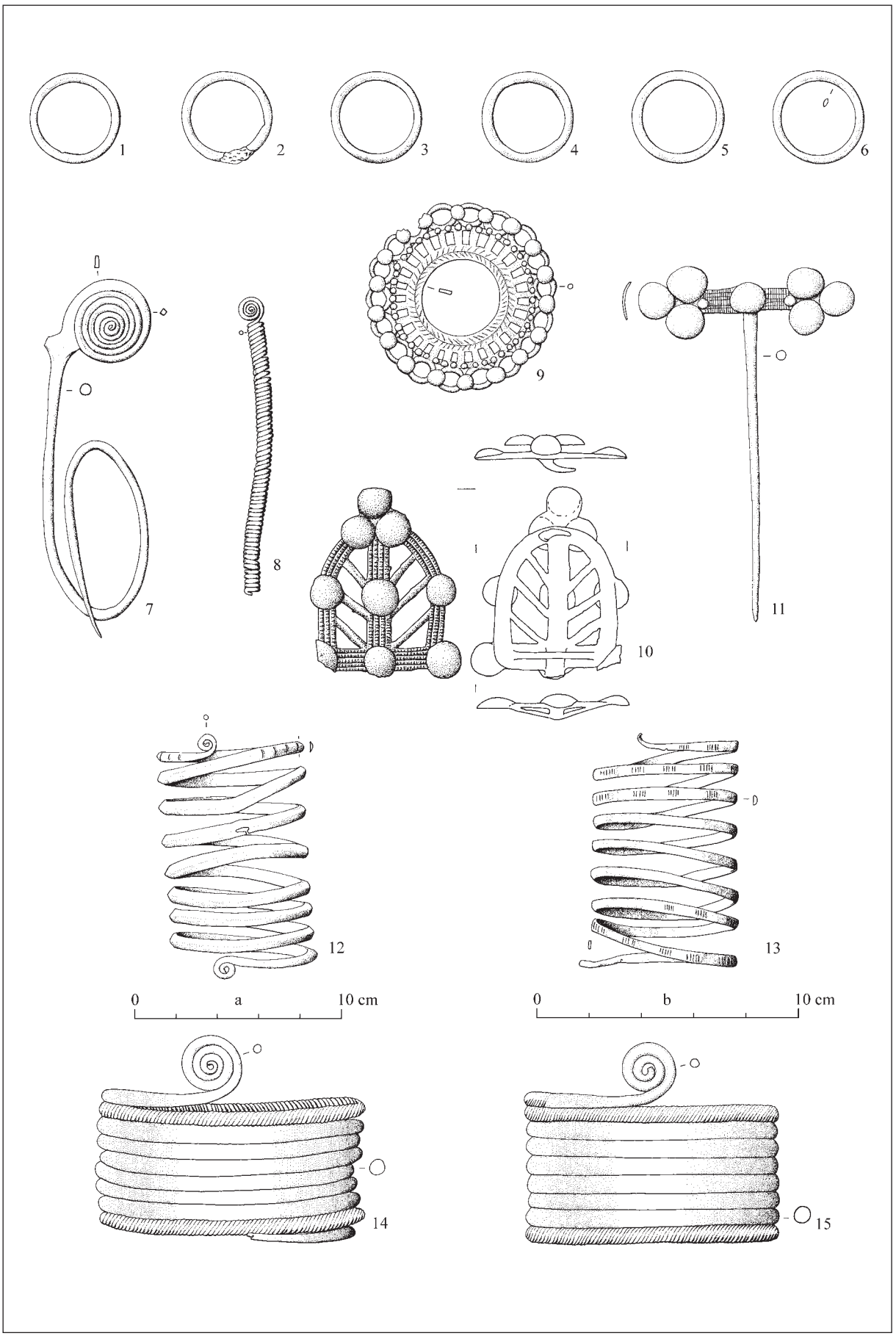

Fig. 5b. Istebné-"Hrádok", bronze hoard (cont. from Fig. 5a). – Scale a: 1–9, 11–15, scale b: 10 (redrawn after Miroššayová 1975. – Novotná 1980).

apparently belongs to fibulae of the Early La Tène or transitional scheme of the type BF-A2, A3 or BF-C1, C2 according to J. Bujna, which are dated from LT B1c to LT B2b.[44] From Blatnica-"Rovná" comes also a hook from an iron cassette belt buckle,[45] which is, along with the cassette belt buckle from another site in Turiec (Sklabinský Podzámok – Turčianska Štiavnička; Fig. 6/9),[46] so far the most eastern representative of these components of a belt in Europe.[47] Cassette buckles are being dated to the developed and later stage LT A, with the possibility of continuity to LT B1.[48] In Austria the existence of the late types until the beginning of stage LT B2 is assuned.[49] Another fragment from Rovná is from a bronze astragal belt.[50] The origin of these belts is to be found in the area of Pannonia, where the earliest dating is to the horizon of Certosa type fibulae and they continue until the Late La Tène period.[51]

From Udiča-"Klapy" a figural horse fibula (*figürliche Pferdefibel*)[52] and a fragment of a triple or quadruple knot ring (Fig. 6/14) are known.[53] Figural fibulae in the shape of fully plastically depicted horses occur at the very end of the Hallstatt period, and mainly during the Early La Tène period and they are mainly found in southern Germany.[54] The main period of occurrence for triple and quadruple knot rings is indeed the stage LT A, but this type of jewellery was used even during LT B and its last representatives have been documented even at the beginning of the LT C stage.[55]

Within the studied area and time interval, we also know other, usually unique finds. The bronze helmet of type Berru from an unknown site in Turiec, which is dated to the stage LT A or at the beginning of LT B1, has long been known.[56] The most abundant group of finds is fibulae. To the Late Hallstatt period up to the beginning of the Early La Tène period is dated a spiral bow fibula with a rectangular-shaped footplate from Detva-"Kalamárka" (Fig. 6/7).[57] An item which can be definitely identified as an Early La Tène period (LT A) product is the mask fibula from Slovenské Pravno (Fig. 6/6).[58] The issue for its use in the further interpretation of the studied time and space is its archaeological context. The fibula was found by a local collector, supposedly in a cultural pit from the 2nd century AD, which was disturbed during building activity in the year 1974. The subsequent rescue archaeological excavation indeed confirmed the existence of disturbed objects from the Early Roman period;[59] however, that does not alter the fact that this extremely important artefact was retrieved in the field in an unprofessional manner, and its application for forming conclusions about the Early La Tène period in the given area is, therefore, potentially questionable. From Vyšný Kubín we have an incomplete bronze fibula of the Certosa type (Fig. 6/5), the typological specification of which is controversial, which is why it cannot be used in a more detailed chronology within the Late Hallstatt period up to the Early La Tène period.[60] From Považská Bystrica-Považská Teplá-"Malý Manín" comes an incomplete iron fibula with the foot in the shape of a stylized bird's head (Fig. 6/8),[61] which, according to the bronze analogies, can be dated to the stage LT A up to LT B1a.[62] The most accurate parallel to the incomplete fibula with the reinforced ornamented bow and with the bird-shaped foot[63] from Tisovec-"Hradová" (Fig. 6/12)[64] could be the fibula from a woman's grave in Mikulčice u Hodonína in Moravia.[65] The fibula from Tisovec shows morphological parallels (shape of bow, size of the spring in proportion to the height of the bow) with the wire fibulae (type Marzabotto/Zürich fibulae/*Züricher Fibeln*);[66] from the foot form and bow ornamentation it resembles the Early La Tène fibulae with the animal-shaped foot (*Tierkopffibeln*).[67] The main period for the occurrence for the fibulae with bird-shaped foot is the LT A and for wire fibulae, the late LT A, but both types occur even at the beginning

[44] Bujna 2003, 46–50, 83–88 and Fig. 62.

[45] Pieta 2012, 317 and Fig. 2/4.

[46] Pieta 2008, Fig. 2/7.

[47] Pieta 2007, 307. – Cf. also Frey 1996, Fig. 6. – Cf. Stöllner 2002, 96–97 and Fig. 39.

[48] Stöllner 2002, 96–97.

[49] Ramsl 2002, 58 and Fig. 9.

[50] Pieta 2012, 317 and Fig. 2/3.

[51] Jerem 1973, 77–78 and Fig. 5/8, 10 and Pl. XV/1–2. The number of astragals in one bar is a dating tool; however, in our case the number cannot be determined.

[52] Pieta 2010, Fig. F41.1.

[53] Pieta 2006, Fig. 2/6.

[54] Stöllner 2002, 67.

[55] Joachim 1992, 34.

[56] Schaaf 1973, 94. – Cf. also Stöllner 2002, 138–139.

[57] Benediková, Kovár 2007, 143 and Fig. 3, with references.

[58] Megaw 1982, 28.

[59] Kolník, Šalkovský 1983, 133, 139–140.

[60] Cf. Pieta 2000, 337 and Fig. 14/1.

[61] Pieta 2012, Fig. 7/10.

[62] Holodňák, Waldhauser 1984, Fig. 2/16. – Waldhauser 1987, Fig. 4/13, 32. – Parzinger 1988, 86–87, 125 and Pls. 64/4, 72/90, 102a, 119/72 etc. – Cf. also Ramsl 2002, Fig. 147 and Pl. 33/4. – Ramsl 2011, 206 and Pl. 142/4a.

[63] Binding 1993 denotes the analogous types of fibulae as the fibulae with the foot in the shape of a duck's head (*Entenkopffibeln*).

[64] Hutka, Bartík 2008, 19–20. – Bartík, Čambal 2014, 95–101.

[65] Ludikovský 1964, 322 and Fig. 1/2. – For other examples of analogous fibulae dated to the LT A, cf. Sedláček, Sankot 2013, 567, 569.

[66] E.g. Parzinger 1988, Pl. 141/69–71. – Cf. e.g. Kaenel 1990, Pl. 52/T.68-1.

[67] Binding 1993, Pls. 38/7–9, 39/3–8 etc.

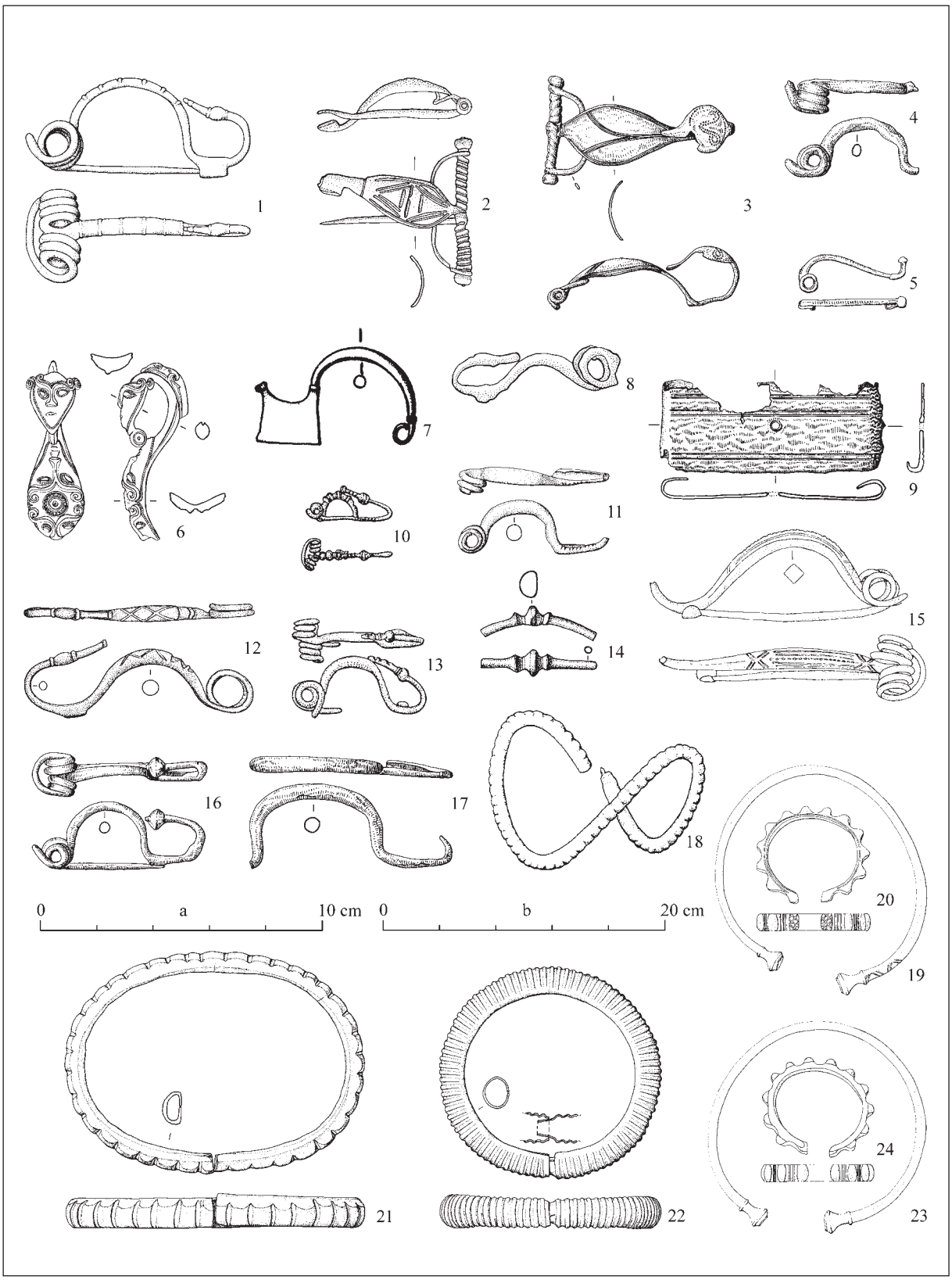

Fig. 6. Late Hallstatt to Early La Tène period finds. – 1. Liptov (after Pieta 2000, Fig. 14/4). – 2. Podskalie-"Podskalský Roháč". – 3. Blatnica-"Rovná"/"Plešovica" (after Pieta 2008, Fig. 2/1). – 4. Blatnica-"Rovná" (after Pieta 2008, Fig. 2/9). – 5. Vyšný Kubín-"Tupá skala" (after Pieta 2000, Fig. 14/1). – 6. Slovenské Pravno (after Pieta 2000, Fig. 14/3). – 7. Detva-"Kalamárka" (after Šalkovský 1994, Pl. 10/10). – 8, 11. Považská Bystrica-Považská Teplá-"Malý Manín" (after Pieta 2012, Fig. 7/7, 10). – 9. Sklabinský Podzámok – Turčianska Štiavnička-„Katova skala" (after Pieta 2008, Fig. 2/7). – 10. Púchov (after Pieta 2000, Fig. 14/16). – 12. Tisovec-"Hradová" (after Bartík, Cambal 2014, Pl. I/1a). – 13. Považská Bystrica (after Pieta 2000, Fig. 14/15). – 14, 21, 22. Udiča-"Klapy" (after Pieta 2012, Fig. 5/6, 6). – 15. Vítkovce-"Tureň" (after Miroššayová, Javorský 1986, 664). – 16. Žilina-Vranie-"Rochovica" (after Pieta 2012, Fig. 7/3). – 17, 19–20, 23–24. Pružina-"Michalová" (after Pieta 2012, Fig. 4, 7/2). – 18. Batizovce (after Pieta 2000, Fig. 14/12). – 4, 8–9, 16–17: iron, others bronze. – Scale a: 1–18, 21–22, scale b: 19–20, 23–24.

of the stage LT B1 (in LT B1a).[68] Since a fluent development transition from the fibulae with bird-shaped foot to the wire fibulae is assumed,[69] the morphology of the fibula from Tisovec is not surprising. Another early fibula is a specimen with a broken-off foot with a roof-shaped or roof-arched ornamented bow with rectangular cross-section, a six-coiled spring (3 + 3) and with the outer string, from Vítkovce in Spiš (Fig. 6/15).[70] Analogies exist between this fibula and fibulae of the pre-Duchcov horizon in the Czech Republic, from which it differs by the number of coils of spring. The vast majority of pre-Duchcov fibulae have a four-coiled spring, with 2 + 3 or 3 + 3 coils occurring as an exception, but, on the other hand, these specimens have a differently shaped bow.[71] It is therefore questionable if, in the case of the fibula from Vítkovce, it would be possible to consider it for a transitional shape between pre-Duchcov fibulae and fibulae of the type BF-A1 according to J. Bujna, which are dated to the stage LT B1b.[72]

To the researched period of time also belong finds of iron axes with a closed (compact or with overlapping opposite ends of a metal band) rectangular shaft hole and with a slightly widened blade end. Axes of this type occur both in the western and eastern (Spiš) half of the studied area, while there are several typological differences between these two groups. However, axes do not contribute to a more precise dating, as their occurrence can be assumed from the Final Bronze Age to the Early La Tène period, with the main period of occurrence in the stage Ha D.[73]

Other finds from northern and central Slovakia already belong to the advanced stage LT B1 and to the stage LT B2. A bronze fibula from Považská Bystrica with an arched bow and a knob on the foot (Fig. 6/13) is closest to the type designated BF-A2 by J. Bujna, dated to LT B1c.[74] The incomplete bronze fibula from Považská Bystrica-Považská Teplá-"Malý Manín" (Fig. 6/11) could also be assigned to the type BF-A2 or BF-A3 (LT B1c–LT B2a). The bronze fibula from Púchov with a plastically ornamented arched bow and a knob on the plastically ornamented foot (Fig. 6/10), for example, has an analogy in grave 127 in Mannersdorf, which is dated to LT B1c–LT B2a.[75] The iron fibula from Žilina-Vranie-"Rochovica" (Fig. 6/16) finds its analogies among the iron fibulae of type EF-A2-Ab according to J. Bujna, which are dated to LT B1c–LT B2a,[76] but also in grave 11 on the burial ground in Radovesice (LT B1b–c) or in grave 12 on the burial ground in Stránce (LT B2a).[77] Regarding the shape of the bow and foot (even though with a different size for the spring diameter), a connection to the late variants of wire fibulae with a similarly shaped foot is not excluded,[78] although the fibula from Žilina apparently belongs to the stage LT B. A fragment of an iron fibula from Pružina is, considering the missing coil and foot, further indeterminable (Fig. 6/17).

From the LT B stage is a bronze saddle-bent bracelet with indistinct bulges and with a latch closure from Batizovce in Spiš (Fig. 6/18), which, together with other items, found in the secondary position during the excavation of the Romanesque church, represents the remains of a disturbed burial ground from the La Tène Period.[79] The saddle-bent bracelet has its parallels among the bronze rings of type BR-B1-B, BR-B3-Bb according to J. Bujna, which are dated from LT B1b to LT B1c–B2a, but, contrary to our specimen, in addition to small ones they also have four more pronounced bulges on the body.[80] The iron ring of type ER-B1-C, dated to LT B1b, is a precise parallel in terms of the shape but not of the material.[81] Another analogy is a saddle-bent ring from Dürrnberg, dated to the phase Dürrnberg III2a by H. Parzinger, which corresponds to the phase IIB1 by L. Pauli, thus the older phase of stage LT B.[82]

To fully illustrate what is currently known about the material culture at the beginning of the La Tène period we will also mention the pottery with zoomorphic applications on the top of the handles, which can, in our area, be dated only very broadly from the Late Hallstatt period up to end of the Early La Tène period (Ha D2–LT B2). We do not include in this group shapes with zoomorphic, or younger stylized plug-shaped bulges definitely from the pre-Púchov contexts of LT B2–LT C1. Vessels, or fragments thereof, with such decoration and with an uncertain time context (pre-Púchov or older) have been found in the Hron River basin (Detva, Horná Lehota) and in Spiš (Hrabušice, Kežmarok).[83]

[68] E.g. Parzinger 1988, 117. – Holodňák, Waldhauser 1984, 31–48 and Fig. 2/16, 21 etc. – Kaenel 1990, 223. – Ramsl 2011, 140 and Fig. 112. – See also footnote 61.

[69] Stöllner 2002, 66.

[70] Miroššayová, Javorský 1986, 664.

[71] Cf. Holodňák, Waldhauser 1984, Tab I. and Fig. 2/3, 11. – See also Meduna 1965, 795–796, 813–825.

[72] Bujna 2003, Fig. 5.

[73] For the most recent addition to known axes in the northern part of the Western Carpathians, see Benediková 2014b, 15–33. – Benediková, Miroššayová 2014, 27.

[74] Bujna 2003, 47, 83–84 and Figs. 7, 62.

[75] Ramsl 2011, 206 and Pl. 145/2a.

[76] Bujna 2003, 63, 83–84 and Figs. 33, 64.

[77] Waldhauser 1987, 116, 146 and Pls. 19/8, 30/15.

[78] E.g. Parzinger 1988, Pl. 72/102b.

[79] Budinský-Krička 1965, 167–168 and Fig. 3.

[80] Bujna 2005, 18–21, 24.

[81] Bujna 2005, 98–101.

[82] Parzinger 1988, 99 and Pl. 124/127.

[83] On this topic, see Pieta 1982, 93–95. – Miroššayová 1992, 133–138. – Miroššayová 1999, 157–166. – Tankó 2005, 153–162. – Benediková 2006, 202–205.

The So-called Vorpúchov-Stufe

The time period in which we are interested is concluded by the rise of the *Vorpúchov-Stufe*, which, according to current knowledge, formed during the Early La Tène period.[84] The *Vorpúchov-Stufe* was determined based on the key contexts of finds, researched in the years 1973–1977 in the Liptov region (sites Liptovská Sielnica-Liptovská Mara I and VII, Liptovská Sielnica-Starhrad, Kvačany and Podtureň).[85] From then until the present, the material base has grown by the material from new sites while the most significant come from the settlement Liptovská Sielnica-Liptovská Mara II. As the preliminary analysis of selected sources from settlement II indicated,[86] the local strata layer (Fig. 7) is crucial for

[84] Pieta 2000, 339–340. – Pieta 2008, 33–34. – Benediková, Pieta 2020, 383–411.

[85] Pieta 1982, 156–157.

[86] Pieta 2000, 315–346.

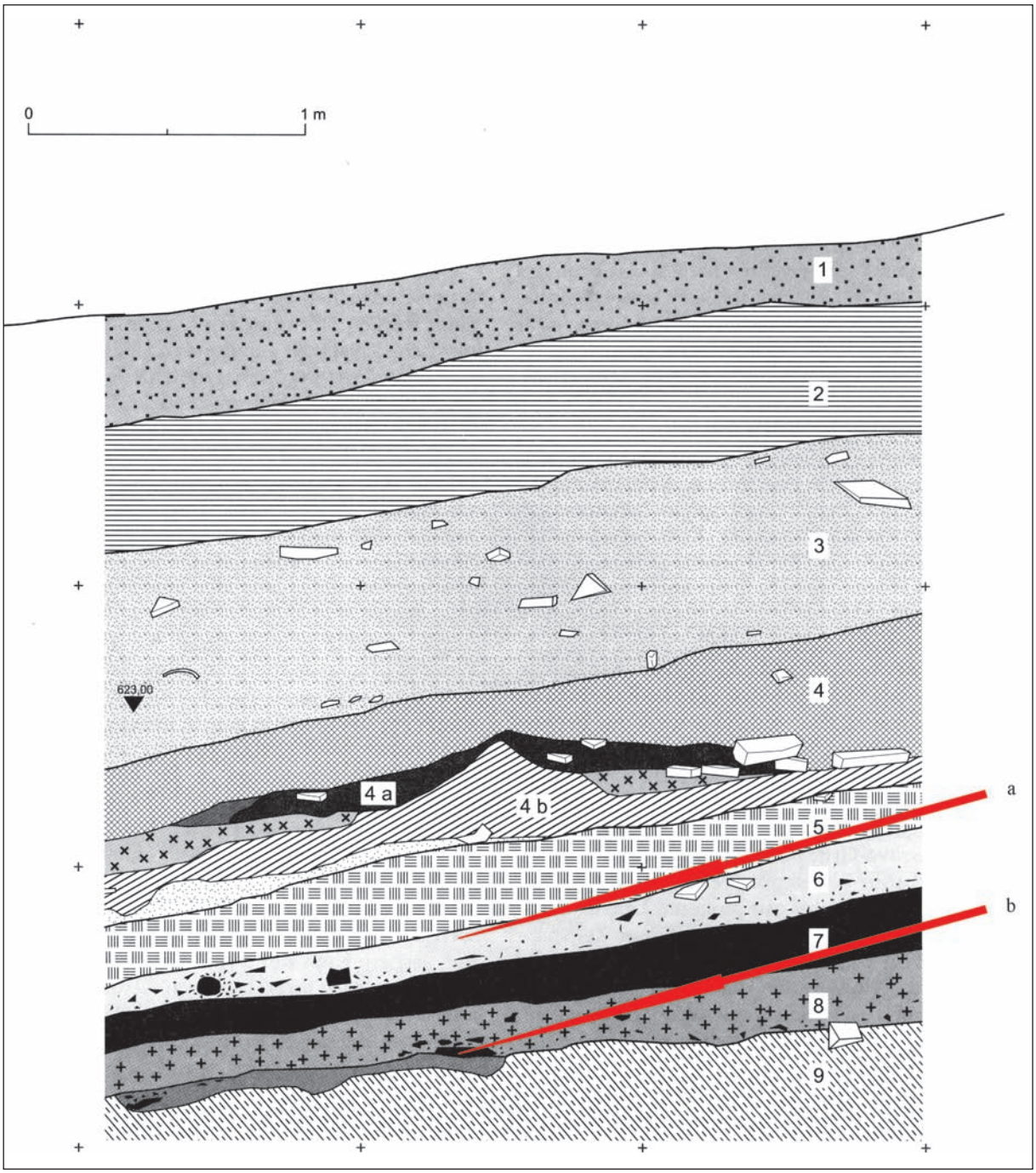

Fig. 7. Liptovská Sielnica-Liptovská Mara II-"Rybníky". Layer stratigraphy within excavation area 2 (after Pieta 2000, Fig. 2). – a. Sampling stratum of the probe VERA-887 (organic material layer, charred peas). – b. Sampling spot of the probe VERA-888 (wooden structure, fir wood).

the definition of the origin of the La Tène period in northern Slovakia. It is related to the issue of bridging over – by means of the archaeological sources – the period of conclusion of the Hallstatt cultural development with the beginning of the La Tène Culture (see below). As we pointed out in previous paragraphs, the sources from other regions of central and northern Slovakia (except Orava, where the end of the Hallstatt development can – based on the material culture – be correlated with the period of refuge places in Liptov and their related settlements and hillforts), whose cultural affiliation (to the *Vorpúchov-Stufe* or other?) is questionable with regard to the missing pottery and infrequent evidence of the settlements from LT A to LT B2 (and actually even from the following stage LT C1, which represents the entire duration of the *Vorpúchov-Stufe* in the Liptov region), do contribute to solving the issue of the beginning of the La Tène period, but they cannot fully solve it. The *Vorpúchov-Stufe* and its character is not the subject of this paper as it was presented elsewhere. Interesting for us, however, is its beginning for which the only available sources related also with the characteristic pottery are from Liptovská Mara. In the following text we will therefore not deal with already known contexts of the *Vorpúchov-Stufe* from Liptovská Mara or from other sites, we will just draw attention to several forms from the already published material content of this stage from this settlement area.

In the strata layer in Liptovská Sielnica-Liptovská Mara II settlement horizons from the Early La Tène period (LT B stage) to the Early Roman period (*Vorpúchov-Stufe*, Púchov Culture from the La Tène period and Púchov Culture from the Early Roman period; Fig. 7) were identified.[87] The layer of the land levelling (no. 5), raised on the area of an older settlement in the whole space of the researched trench, separates the oldest Late La Tène layer (no. 4b) from the younger pre-Púchov layer (no. 6). Between the younger and older pre-Púchov layer (no. 8) was a sterile layer formed by natural sediment (no. 7). Within the older pre-Púchov layer three settlement horizons were identified, separated from each other by interlayers formed by natural sediments.[88] Sources from the settlement have not yet undergone complex processing, but it is apparent that they have significant potential for solving the beginnings of the oldest La Tène occupancy (at least) in the region.

Among the finds from pre-Púchov layers at settlement II, types also appeared which could suggest the shift of the beginning of the *Vorpúchov-Stufe* into the older period, than it was previously defined in the stage LT B2. The S-shaped low pots or higher bowls (*Näpfchen*), in one case with a horizontal encircling plastic strip between the neck and shoulders and with oval depressions on the perimeter of the shoulders (Fig. 8/4–5, 13) have shape analogies (but without the encircling strip), for example, at the Late Hallstatt–Early La Tène settlement in Bratislava-Dúbravka[89] or in Inzensdorf.[90] In the feature *Verf.* 1636 in Inzensdorf, dated to the local phase II – the younger section, which corresponds approximately to the young LT A, or LT A2/LT B1 – a similar shape with a different ornament but with the encircling strip was discovered.[91] The shape from the settlement at the foot of the hillfort Ostrá skala in Vyšný Kubín,[92] which, unlike the mentioned analogies and unlike the specimen from Liptovská Mara has a slightly thickened – more "La Tène-like" – rim, which could indicate a more advanced type, definitely belonging to stage LT B, is also analogous.[93] Another pottery shape, which indicates earlier stages of the Early La Tène period, is a conical bowl with a black surface, a profiled horizontal cut-off rim and with an encircling plastic strip, made from fine-washed and quality-fired clay (Fig. 8/15). Analogous shapes occurred again in the neighbouring region of Orava (hillfort Istebné-"Hrádok"). All three pieces obviously represent foreign shapes in the mountainous territory of northern Slovakia and they have their analogies, for example, in a bowl made from graphite clay, such as was found in the Late Hallstatt–Early La Tène settlement (*Ansitz*) in Bärndorf-"Kaiserköpperl" in the layer dated to LT A–LT B1.[94]

To the archaic finds among the metal finds belongs a fragment of an iron fibula with a reinforced arched bow and eight-coiled spring with the central axis bar (Fig. 8/16), which has analogies in the type of iron fibulae of the Early La Tène scheme with the spherical foot and highly arched, reinforced bow EF-C2 according to J. Bujna, which is dated to LT B1b–c.[95]

Finds from settlement III could testify about the beginning of the pre-Púchov occupation of the settlement area in Liptovská Mara already before the stage LT B2, possibly at its beginning, in particular an iron fibula with a reinforced bow and long foot with spherical ending and perhaps also a fragment of an iron hewing knife of the Dürrnberg type.[96] Analogous to our iron fibula is the type EF-C3 or C4 according to J. Bujna, dated to the stages LT B1c–LT B2a.[97] Hewing knives of the Dürrnberg type with or without a reinforced knob on the handle are dated to LT B or

[87] Pieta 2000, 315–346, with references on the topic of the *Vorpúchov-Stufe* and the Púchov Culture.

[88] Pieta 2000, 325.

[89] Stegmann-Rajtár 1996, Fig. 11/3.

[90] Ramsl 1998, Fig. 32 and Pls. W11, 11, W28, 28, 75/591, 95/842, 121/1279.

[91] Ramsl 1998, 45 and Fig. 32, Pls. W13, 13, 105/967.

[92] Benediková 2006, Pl. XXIII/3.

[93] For the typological development of rims on the early La Tène pottery, see Schwappach 1975, 112 and Pl. 6.

[94] Eibner 1996, 91 and Fig. 4/4.

[95] Bujna 2003, 68, 82–84, 98, and Fig. 40.

[96] Pieta 1996, Tab. I/1, 4. – Pieta 2000, 339.

[97] Bujna 2003, 69–70, 98 and Figs. 38, 64.

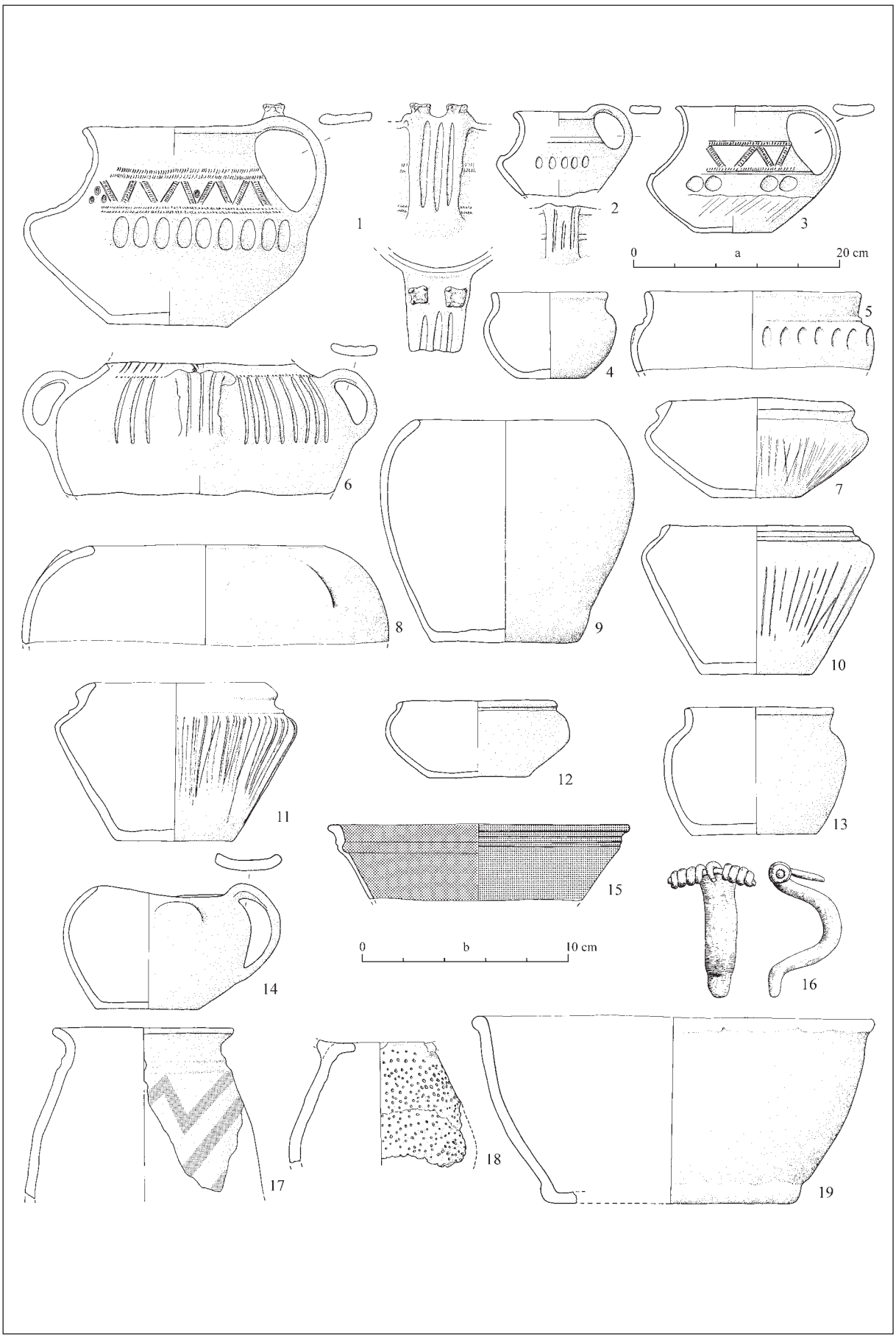

Fig. 8. Finds from the so-called *Vorpúchov-Stufe* from Liptovská Sielnica-Liptovská Mara II. – 1–15, 17–19: pottery, scale a. – 16: iron, scale b (after Pieta 2000, Figs. 5/27, 8).

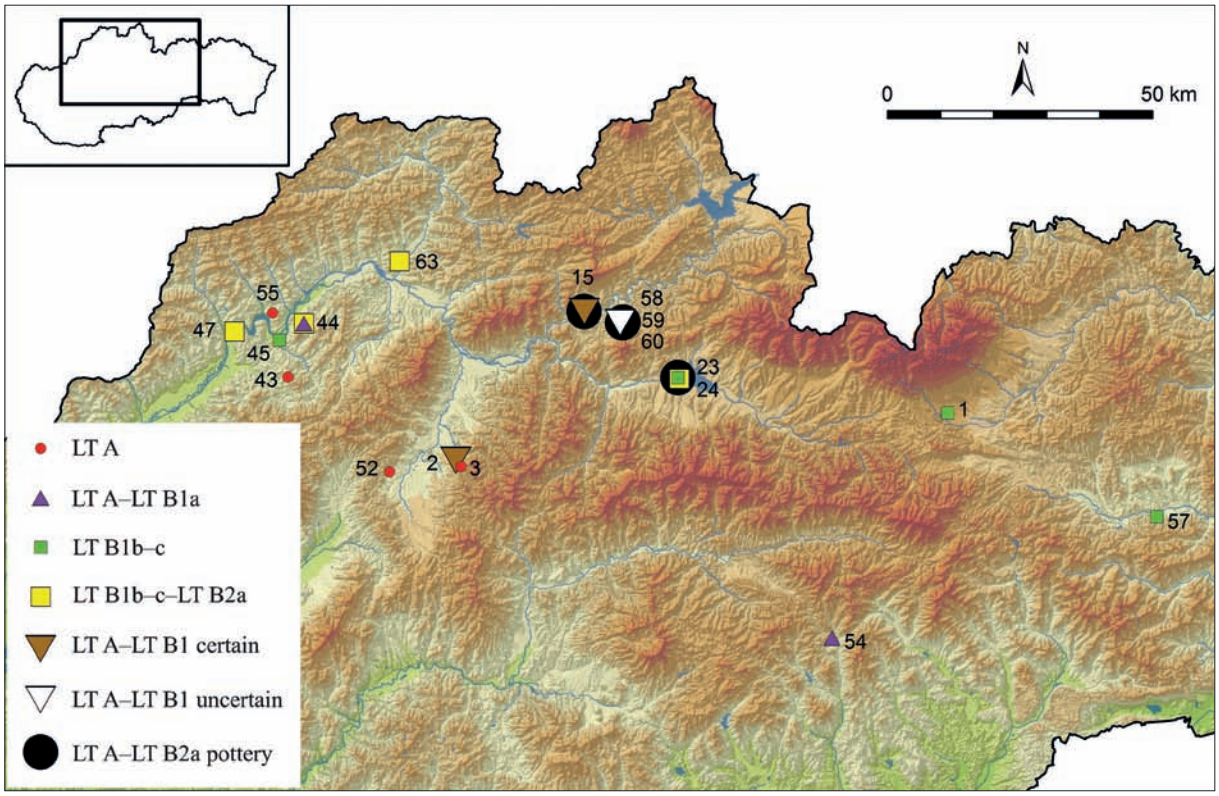

Fig. 9. Distribution of LT A and LT B finds in the Slovakian part of the north of the Western Carpathians (as known in 2014; map by L. Benediková and M. Bartík).

to its younger part, even though with a possibility of their use also in LT C stage.[98] An analogous hewing knife without the knob on the handle was discovered in grave 233 in Pottenbrunn, dated to LT B1a/b.[99] In the burial ground in Mannersdorf these knives were found in graves from LT B1 and LT B2.[100]

Results and Discussion

As the analysis of available sources from the researched territory from the Late Hallstatt period up to the Early La Tène period (LT A–LT B) revealed, the sources of material culture inlcude pottery and metal items. Several ceramic shapes typical for the region occur explicitly in the northernmost mountain valleys of Orava and Liptov; they represent local forms with traditions in the Hallstatt period (Figs. 3–4), and without reliable contexts with other representative types the dating is impossible. From these two regions come also metal items of a local production, to which there are no parallels from other areas (a diadem of type Istebné, a pin of type Orava). Pottery finds from Spiš are represented by pottery with zoomorphic applications at the top of the handles, namely on shapes which can be only broadly dated from the Late Hallstatt period up to the end of the Early La Tène period (i.e. from Ha D2 till LT B2). Metal items from other regions are mostly found without contexts (solitary finds, finds from the hilltop settlements, either from excavations lacking a sufficient documentation or from surveys, hoards), which can be determined only according to analogies. Only a very few purely Early La Tène period elements occurred in here analysed set (*Fußpaukenfibeln* from Blatnica and from Podskalský Roháč, figural horse fibula from Udiča, mask fibula from Slovenské Pravno with problematic archaeological context). Two groups of finds have a transitional character. One group is represented by items dated from the Late Hallstatt period up to the LT A stage; another typological-chronological group is composed of finds, which could be from LT A, but their survival up to the beginning of LT B cannot be excluded. More of the metal finds (mainly fibulae) come from advanced phases of the stage LT B1 and from LT B2 (Fig. 9), which already belong to the period when burying on the flat Celtic burial grounds spread to southwestern Slovakia and other neighbouring areas, i.e. to the period definitely after the first Celtic colonization wave.[101]

LT A and LT B finds from the settlement area in Liptovská Mara identified to date suggest the possibility of shifting the beginning of the formation of the so-called *Vorpúchov-Stufe* deeper into the past

[98] Osterhaus 1981, 13–14 and Fig. 2/8.

[99] Ramsl 2002, 84 and Figs. 86/233-17, 147.

[100] Ramsl 2011, 206, 208 and Figs. 119/180-1, 120/116-7, 117-33.

[101] Bujna 2004, 322, 330. – Bujna 2011, 147.

in contrast to what is defined in older literature as its beginning during the stage LT B2.[102]

It is evident that without obtaining reliable datable contexts and without the complex processing of material from the settlement in Liptovská Mara II, the new conclusions on the beginning of the La Tène period in northern and central Slovakia cannot be better expressed. The best tool for specifying the chronology in areas with significantly locally oriented production is certainly the absolute data. So far, for the studied time interval for our territory only one set of absolute data is available – specifically from the refuge place on Demänovská Poludnica in the cadastral area Demänovská Dolina and Liptovský Mikuláš-Ploštín. Within the following period of the *Vorpúchov-Stufe* (from its earlier and later part) we can work with two data obtained from the settlement in Liptovská Sielnica-Liptovská Mara II (see below).[103] In the following text, we deal with the contribution of the absolute dating to the formulated set of issues.

RADIOCARBON DATING OF SAMPLES FROM DEMÄNOVSKÁ POLUDNICA AND LIPTOVSKÁ MARA II

Samples and Contexts

At present, only one long-lived and two short-lived ^{14}C samples,[104] all analysed in the Vienna Environmental Research Accelerator laboratory in the early 2000s, relate to the absolute dating of the end of the north Slovakian refuge places and later *Vorpúchov-Stufe*.[105] The archaeologically earliest sample originates from the refuge place Demänovská Poludnica and is presumably associated with its downfall. The downfall of refuge places in the Liptov area is a regional phenomenon supposedly marking the cessation of Hallstatt cultural development. The two remaining samples come from the settlement of Liptovská Mara II and are associated with the earlier and the later part of the *Vorpúchov-Stufe*, respectively.

The sample of peas (*Pisum sativum*)[106] from Demänovská Poludnica (VERA-892: 2385±30 BP) was collected from a stratum representing in the original archaeological interpretation the destruction of the refuge place.[107]

The samples from the settlement Liptovská Mara II (Fig. 7) were collected from two different contexts. A fragment of charred firwood (*Abies alba*;[108] VERA-888: 2405±35 BP) believed to be a fragment of structural timber, is associated with the earlier part of the *Vorpúchov-Stufe*. A stratum representing the later part of the *Vorpúchov-Stufe* yielded a sample of charred peas (*Pisum sativum*;[109] VERA-887: 2190±35 BP).

Chronometric Hygiene

As for the chronometric hygiene of VERA-892 and VERA-887, both are C_3 plant samples of sub-annual formation directly associated with archaeological events.[110] While VERA-887 (Liptovská Mara II) comes from a chronologically well-understood

[102] Benediková, Pieta 2020, 383–411.

[103] New series of AMS data are currently being processed and will be published later.

[104] Cf. Barta et al. 2013.

[105] Cf. Pieta 2000, 331. – Cf. Barta, Pieta 2004.

[106] E. Hajnalová, personal communication.

[107] Pieta 1980a, 165–166.

[108] M. Hajnalová, personal communication.

[109] M. Hajnalová, personal communication.

[110] Cf. Barta 2008.

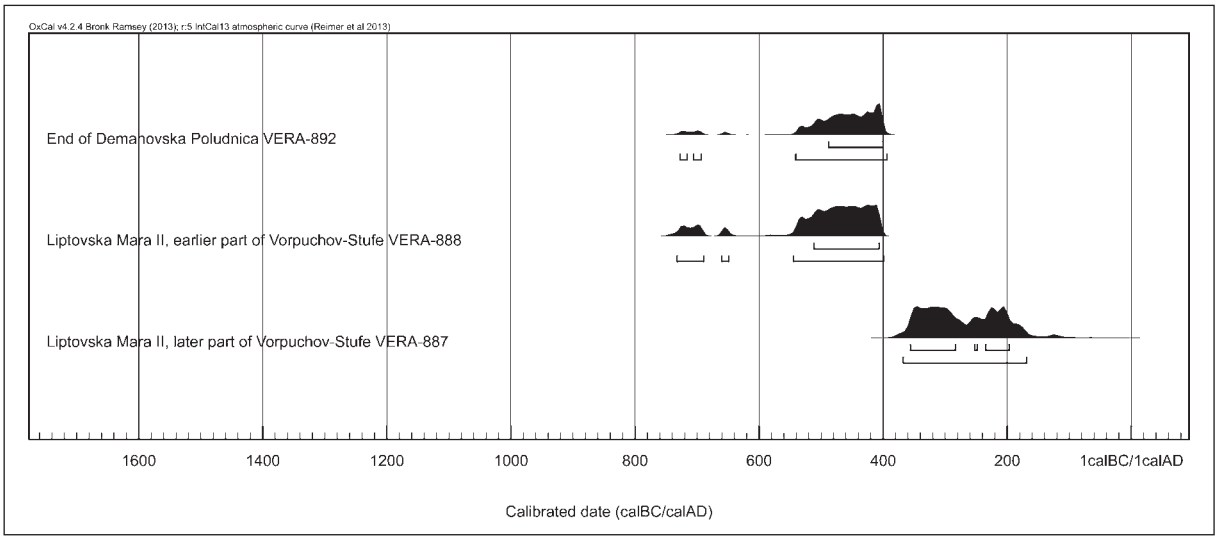

Fig. 10. Radiocarbon dates from the refuge place Demänovská Poludnica and the settlement Liptovská Mara II (P. Barta).

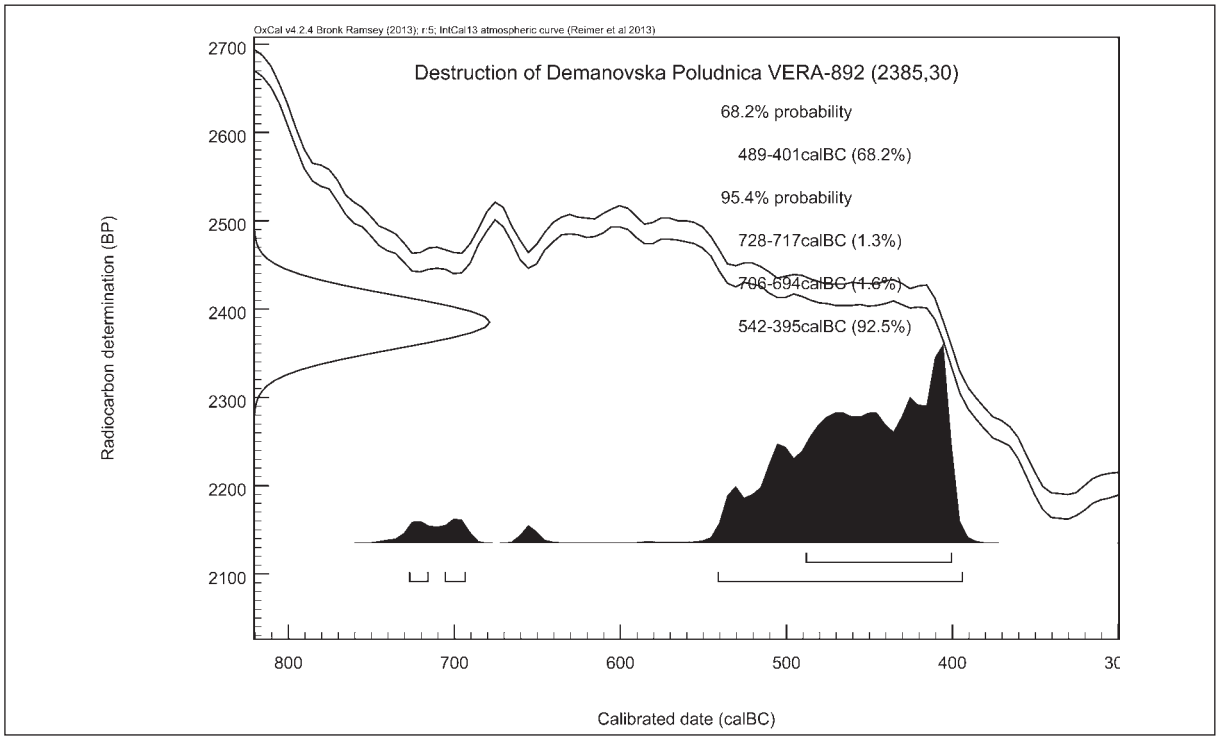

Fig. 11. Calibrated ^{14}C date of peas from the refuge place Demänovská Poludnica (P. Barta).

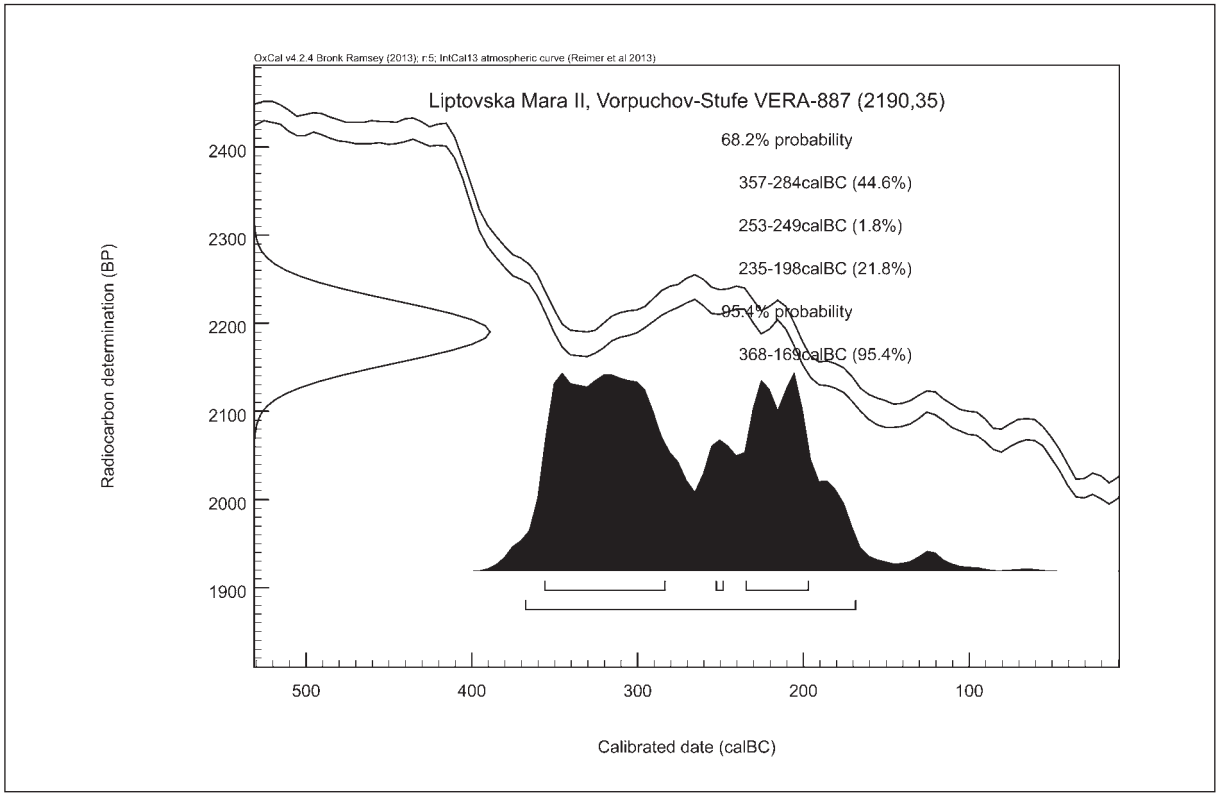

Fig. 12. Calibrated ^{14}C date of peas from the settlement at Liptovská Mara II, later part of the *Vorpúchov-Stufe* (P. Barta).

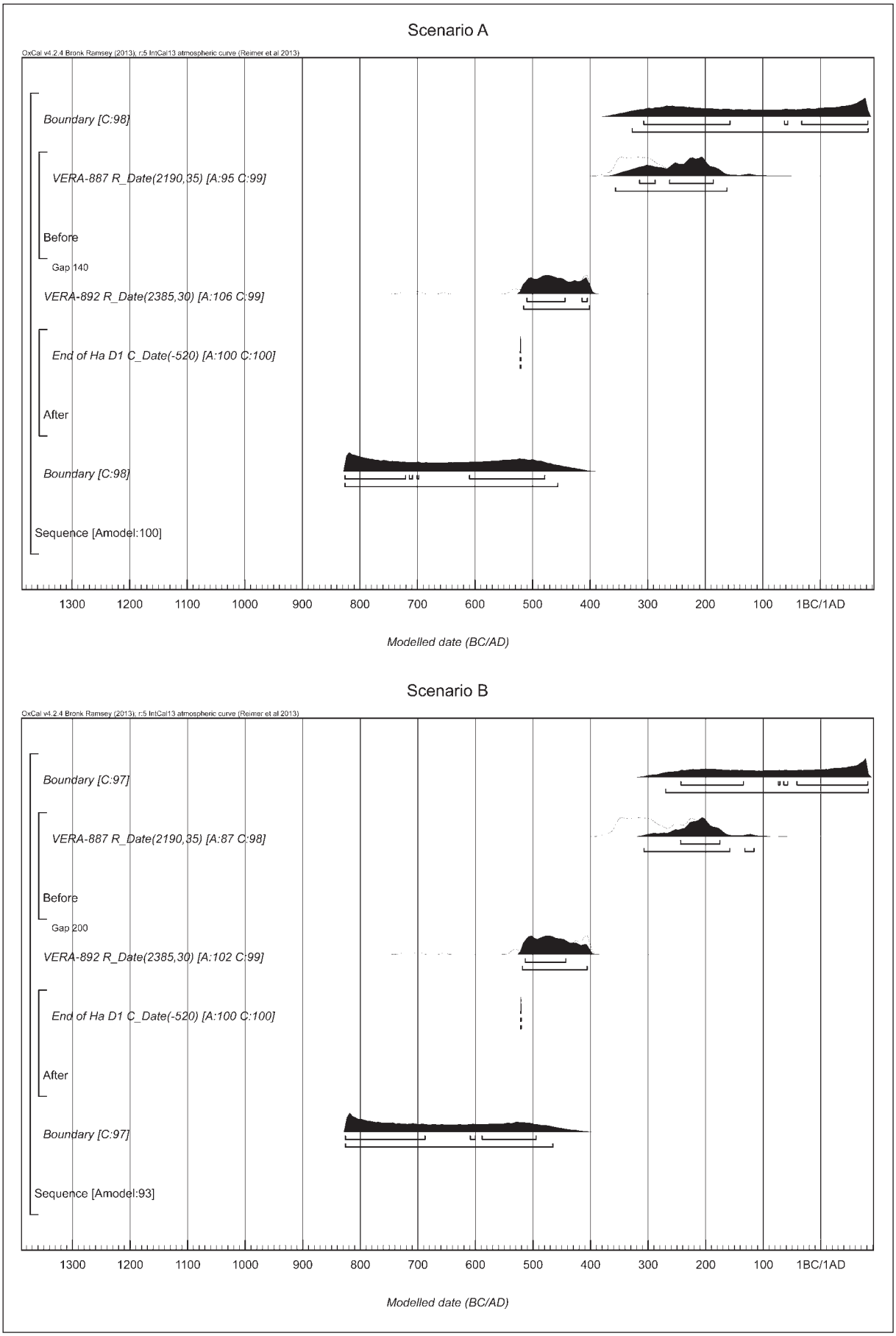
Scenario A
OxCal v4.2.4 Bronk Ramsey (2013); r:5 IntCal13 atmospheric curve (Reimer et al 2013)
Boundary [C:98]
VERA-887 R_Date(2190,35) [A:95 C:99]
Before
Gap 140
VERA-892 R_Date(2385,30) [A:106 C:99]
End of Ha D1 C_Date(-520) [A:100 C:100]
After
Boundary [C:98]
Sequence [Amodel:100]
1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 1BC/1AD
Modelled date (BC/AD)
Scenario B
OxCal v4.2.4 Bronk Ramsey (2013); r:5 IntCal13 atmospheric curve (Reimer et al 2013)
Boundary [C:97]
VERA-887 R_Date(2190,35) [A:87 C:98]
Before
Gap 200
VERA-892 R_Date(2385,30) [A:102 C:99]
End of Ha D1 C_Date(-520) [A:100 C:100]
After
Boundary [C:97]
Sequence [Amodel:93]
1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 1BC/1AD
Modelled date (BC/AD)

Fig. 13. Two scenarios supposing the time which passed between ^{14}C dated events to be 140 and 200 years corresponding to duration of LT B (upper diagram) and LT B together with LT C1 (lower diagram), respectively (P. Barta).

context of pea storage,[111] VERA-892 (Demänovská Poludnica) comes from the site investigated by small test trenches only. Moreover, indication of re-deposition[112] and a possibility of earlier Hallstatt period use of the spot might make the association of charred peas with the downfall of the refuge place debatable. However, our current knowledge does not exclude this association.

Regarding the long-lived sample VERA-888 (Liptovská Mara II), the position of the dated charcoal fragment within the tree trunk is unknown. This determination has a character of *terminus post quem* for the earlier part of the *Vorpúchov-Stufe* and, not being connected with an archaeological event (felling date) in a way enabling quantification of the offset between the dated rings and the cambial ring, it will be omitted in our discussion (Fig. 10).

Dating Archaeological Events?

Even if only two determinations directly linked with archaeological events are available, we can pose simple chronological questions and test chronological models based on the measured dates and external archaeological observations. We can investigate how the data will behave when external information is included in the analysis, which, in the end, could lead to solutions with fine chronological resolution. Due to the paucity of dates, our conclusions have the nature of zero hypotheses to be tested in the future.

The first question we can ask is the one about the time of use or downfall of the refuge place Demänovská Poludnica. According to the vague prior calibration of a single date, the event related to charred plant macroremains most likely occurred in 542–395 calBC (Fig. 11).

The second question is a time point in the existence of the settlement Liptovská Mara II from the later part of the *Vorpúchov-Stufe*. This time point is to be sought in the period 368–169 calBC. As a result of ^{14}C variations in the late 4th and 3rd centuries calBC, the chronological resolution of this vague, prior calibrated date is coarse (Fig. 12).

Radiocarbon dates from Demänovská Poludnica and Liptovská Mara II can be investigated to determine whether they could produce more information if constrained by external chronological knowledge. This knowledge[113] is the outcome of archaeological observations and reasoning employing a variety of rationales, and as it is beyond the scope of this paper, must be left undiscussed. We have employed the following external information: Ha D1 ended in 520 BC;[114] LT B in Slovakia lasted from 390/380 to 240/230 BC; LT C1 in Slovakia ended in 180 BC.[115]

For the two ^{14}C dated archaeological events, i.e. the date of the assumed downfall of the refuge place and the point in time at which the settlement existed, which are both younger than the end of Ha D1, we have suggested two scenarios. These scenarios take into account our uncertainty about the position of sample VERA-887 (Liptovská Mara II) within the later part of the *Vorpúchov-Stufe*. Scenario A supposes that the archaeological events are separated by 140 calendar years, which is the shortest duration assumed for stage LT B. Scenario B supposes that the gap between them is 200 years, which is the shortest duration assumed for stages LT B and LT C1 together.

As can be seen in Fig. 13/A–B, both scenarios are acceptable and the dates correspond well to external archaeological knowledge. The chronological resolution has slightly improved. Namely, the refuge place destruction took place, at confidence level 95.4 %, in 516–402 calBC (scenario A) or in 519–407 calBC (scenario B); the date for the settlement from the later part of the *Vorpúchov-Stufe* is to be sought, at 95.4 % confidence level, in 357–163 calBC (scenario A) or in two disjunctive intervals 308–159 and 133–117 calBC (scenario B).

Result and Outlook

Accordingly, the available ^{14}C evidence cannot help to pinpoint the time of destruction of the refuge place Demänovská Poludnica with fine chronological resolution. Destruction of this site, pertaining also to the time of the end of the Hallstatt cultural development in the region, is to be sought in the late 6th–5th centuries calBC. For investigation of the absolute chronology of the late Hallstatt and emerging La Tène periods in the region, it is vital to find sample materials clearly associated with archaeological events. It is hoped that such samples, accompanied with suitable tree-ring series, will overcome the impact of short-term radiocarbon fluctuations prior to 436 BC.[116]

CONCLUSIONS

At the moment, it is possible to make only preliminary and general statements about the end of the Hallstatt and beginning of the La Tène periods in the northern part of the Western Carpathians. The information obtained by analyses of archaeological materials and ^{14}C dates cannot be used for a detailed chronological characterisation of the transition from Hallstatt to La Tène culture in this region.

[111] M. Hajnalová, personal communication.

[112] Pieta 1980a, 165–166.

[113] Teržan 2008 (2010), Fig. 42. – Venclová et al. 2008, Tab. 1. – Bujna, Pieta in prep. – J. Bujna, personal communication 2014.

[114] Teržan 2008 (2010), Fig. 42.

[115] Bujna, Pieta in prep.

[116] Ozaki et al. 2007. – Meadows et al. 2014.

Nevertheless, the questions posed at the beginning of the paper can be partially answered:

1. The end of Hallstatt cultural development can, on the basis of two available ^{14}C dates, be located in an interval of some 120 years in the late 6th–5th centuries calBC. Covering the end of the Hallstatt and the beginning of the Early La Tène period in terms of traditional relative-chronological schemes, this large time span prevents us from commenting on issues of historical importance such as, for instance, whether the end of refuge places and the Hallstatt cultural development can be connected with the (destructive or violent?) penetration of the first Celtic groups into our territory.[117]

2. Considering the occurrence and distribution of the elements of La Tène material culture, we can state that the first artefacts of this character can be dated to the LT A and to LT A–LT B1a stages and are found in the western part of the territory under discussion (rarely further eastwards; Fig. 9). They represent the products and time of either the penetration of the first Celtic groups (prospectors?) or of the penetration of the first Celtic/La Tène items to the region.[118] The denser distribution of these elements in the western part of the investigated territory shows the direction of gradual diffusion of La Tène culture within the northern part of the Western Carpathians. The earliest objects from the territory of the so-called *Vorpúchov-Stufe*, i.e. from the Liptov region (that is, the only one to be indisputably associated with this cultural manifestation with respect to the contexts with related local pottery material), can at present, without any doubt, be ordered in the LT B stage, with a questionable emergence of some items already in LT A stage.

3. What has been stated above does not contradict the ^{14}C dates presented, the informational value of which, however, is not to be overinterpreted, especially if their chronometric hygiene and modelled mutual real-time relations are taken into account. The ^{14}C evidence at hand cannot be used as a reliable and independent support for any of our statements.

4. The available arguments seem to suggest that in the investigated area, at least in the northernmost regions of Liptov and Orava, there was a continuity of Hallstatt and La Tène cultural development. The possible early dating of known isolated elements of material culture of the so-called *Vorpúchov-Stufe*, interpretation of the absolute dates, and finally, the presence of traditional (Hallstatt culture) elements in the material culture of the La Tène *Vorpúchov-Stufe*, and occasionally also later, speak in favour of this continuity.[119]

More conclusive answers to all the points discussed can be obtained only through broadening the source basis by problem-oriented field research (new archaeological materials and ^{14}C dates) as well as through the processing and evaluation of available data (processing and evaluation of the large assemblage from Liptovská Sielnica-Liptovská Mara II is inevitable for making any progress in this topic in the future).

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[117] For the situation in southwestern Slovakia, similarly see Bujna 1994, 9.

[118] Cf. e.g. Bujna 1994, 9, 12.

[119] Pieta 1982, 159–160.

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BUILDING LIKE THE CELTS? ON THE POTENTIAL INFLUENCE OF CELTIC ARCHITECTURE ON THE BUILDING TRADITION OF THE PRZEWORSK CULTURE

ANDRZEJ MICHAŁOWSKI, MILENA TESKA

Abstract: This article will look at the building construction methods of the Przeworsk Culture, according to our current understanding of the subject, and attempt to compare it with the buildings of the neighbouring Celtic world. The goal will be to analyze to what extent the interactions between the two cultural areas affected the sphere of construction. Dugout dwellings found at settlement sites of the Przeworsk Culture are so numerous that their presence can be used as an indicator of sorts, marking the borders of the culture's settlement area. A similar relationship was observed at deposit sites from the region of eastern Celtica. For these reasons they can serve as a mass statistical sample in the process of comparing construction technology.

Keywords: Building construction technology, sunken featured buildings, La Tène Culture, Przeworsk Culture

Central Europe between the 5th century BC and the turning of the eras was clearly diverse in terms of its civilizational composition. The south was inhabited by the Celts, who dominated over the interior of the continent of Europe – their archaeological remains are nowadays referred to as artefacts of the La Tène Culture. In the north, independently, Europe also saw the development of local groups, who creatively drew on local adaptations of post-Halstatt traditions. G. Schwantes compares this opposition of the north and the south through the context of the Jastorf Culture, seeing both as equal "civilizations"[1] – a conclusion that some might find too far-reaching. He emphasizes initial differences in the development pattern of these two worlds, identifiable until the turn of the 3rd and 2nd century BC, which marked the beginning of an evident process of reception of La Tène elements by central European communities.

In this process of absorbing new patterns and styles of the La Tène Culture, the Central European peoples nevertheless did not transpose the complete model of Celtic civilization onto their own culture. They only carried over certain aspects, adapting them to the level of development of their own social structures. These interactions are visible in various spheres of social activity – ranging from utilitarian aspects all the way to influences that affected the values and beliefs, which are evidenced by changes in burial rites. This process was particularly strong in the case of peoples belonging to the Przeworsk Culture.[2] Their burial ceremonies include aspects that were evidently influenced by Celtic culture. This formal similarity is the basis for labelling the Przeworsk Culture as the group that most fully drew from the world of Celtic civilization. But is this label the result of actual in-depth reflection or rather superficial recreation of observed behaviours? Can we really observe these processes happening simultaneously in all spheres of activity among all communities of the Przeworsk Culture? In this article we will analyze one such aspect, namely construction, i.e. the technology and related skills allowing for the erection of buildings.[3] Throughout the ages men have used different systems of construction depending on the climate, their particular needs, the available resources and the skills of the builders.[4] Erecting a wooden building requires the carpenter to be able to perform a succession of specialized tasks, which eventually result in the creation of said structure. These tasks are based on utilizing simple carpentry forms, created according to a specific custom usually passed down through generations, depending on the intuition and experience of the carpenter doing the task. Consequently, despite their universal character, such structures sometimes become more localized, i.e. characteristic for specific settlement areas.[5] So is it possible for external influences to be absorbed into local construction traditions? Would the structures erected based on said influences satisfy the needs of different communities? The aim of this article will be to analyze to what extent the interactions between the Przeworsk and Celtic cultural areas affected the sphere of construction, and attempt to compare it with the buildings of the neighbouring world.

[1] SCHWANTES 1950.

[2] DĄBROWSKA 1988, 105.

[3] SZOLGINIA 1975, 47, 49.

[4] MICHAŁOWSKI 2011, 13, 14.

[5] WATERBOLK 2009.

WOODEN STRUCTURES IN CENTRAL EUROPE IN THE AGE OF CELTIC DOMINATION

The availability of source materials regarding prehistoric constructions is inextricably linked to successful analyses of deposit sites; conducted excavations provide us, among other things, with identified remains of residential and farm buildings. In the area of the North European Plain, throughout the five thousand years of carpentry development, people established certain fixed procedures and techniques used for timber building construction, which became regular tools of the trade for any working carpenter.[6] In its basic form, the building technology of the Pre-Roman Iron Age in the north of central Europe is not much different from the solutions favoured in the part of central Europe occupied by Celtic societies, although there are significant differences in the structural details. The construction technology of the La Tène period/Pre-Roman Iron Age made use of several carpentry forms, which were then crucial to erecting timber structures used all over the broadly-defined area of central Europe. The preserved remnants of these structures indicate that the most ubiquitous construction technique was the post and beam structure, with the roof being supported by an internal grid of various forms and stabilized by load-bearing elements, which formed structural parts of walls, mostly woven, often additionally covered with clay.[7]

In the Celtic world, the basic structure was a surface house made of timber. It was only after the Roman conquest that stone structures became more prominent in Gallo-Roman building traditions.[8] Although past literature claims that the *oppida* of the Czech lands and Moravia consisted mostly of sunken featured buildings – *Grubenhäuser*[9] – further systematically conducted studies of fortified settlements of the area clearly indicate the presence of surface-built structures. Moreover, Czech scholars emphasize that, both in the case of *oppida* as well as open settlements, these surface structures were actually the most important category of buildings, used for residential purposes.[10] Undoubtedly, this shift in looking at buildings from this particular cultural area was brought about by the research carried out at the Manching *oppidum*. The timber buildings at the site were rectangular in shape and 8 to 41 metres long. Their width did not extend beyond 6 m. Apart from these, scholars also identified smaller surface structures in Manching with the dimensions 6–5.5 × 4.6–4.4 m,[11] interpreted as craftsmen's workshops.[12] The walls of the Manching buildings were built of pairs of vertical posts placed opposite each other (Fig. 1). It is possible, particularly in the case of smaller single-aisle structures, that these posts served as load-bearing elements for gabled roofs, constructed with a rafter and truss beam structure. Wider buildings were twin-aisle structures, with the rafter framing supported by massive posts

Fig. 1. Manching, Lkr. Pfaffenhofen an der Ilm, Bavaria, Germany. Traces of the outline of houses uncovered in the area of oppidum (after Krämer 1962. – Kruta 2010).

[6] Zimmermann 2004.

[7] Michałowski 2011, 61–86.

[8] Schlette 1979, 84.

[9] Krämer 1962, 300.

[10] Meduna 1980, 47, 48.

[11] Krämer 1962, 300, 301.

[12] Schlette 1979, 82.

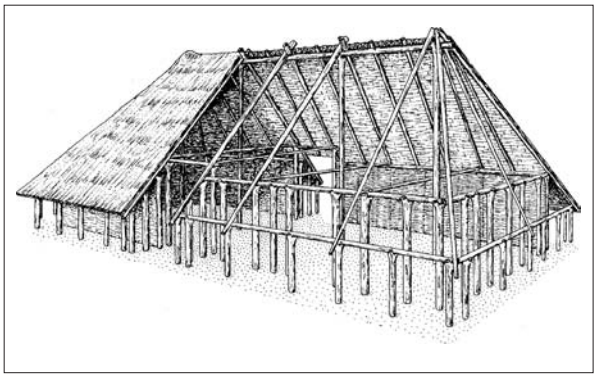

Fig. 2. Reconstruction of the Haps-type house (after Verwers 1972).

placed within the building along its longer axis. The empty spaces of this partial wall frame created by posts were filled with woven elements covered with clay.[13] Outlines of twin-aisle structures can also be identified on the plans of a fortified Celtic settlement Hambach 382 in Niederzier, district of Düren, located on the Middle Rhine.[14]

At the same time, the dominant building type in the Germanic world is the three-aisle surface-built timber structure.[15] However, in certain areas, long wooden dwellings are erected as twin-aisle buildings. This phenomenon was observed in selected locations in contemporary Lower Saxony, in the Alt-Westfalen region. Further west, similar structures appear throughout vast territories of the southern Netherlands,[16] more specifically in north-eastern Brabant and Limburg. To the south, this construction technique reaches beyond the Holland-Belgium border.[17] This type of building was first described by G. J. Verwers[18] as the Haps-type house (Fig. 2), named after the eponymous site, where scholars examined

[13] Krämer 1962, 300, 301.

[14] Joachim 1982, 159 and Fig. 3.

[15] E.g. Brabandt 1993. – Trier 1969. – Weinmann 1994.

[16] Reichmann 1982, 164.

[17] van Es 1982, 144.

[18] Verwers 1972.

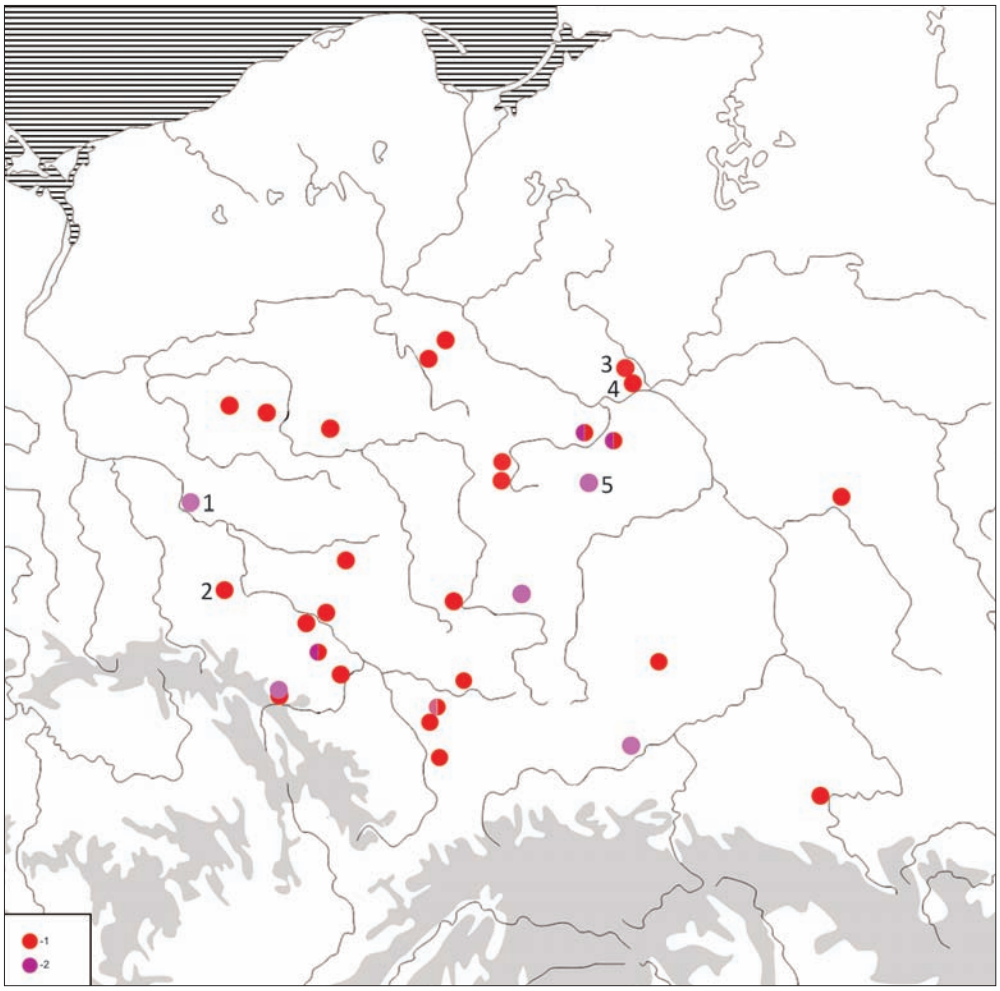

Fig. 3. Remains of buildings with a possible twin-(1) or three-(2)aisle system from the Przeworsk Culture area. – 1–5. The buildings dated to the earlier Pre-Roman Iron Age: certain dating 1. Siedlisko: A; 2. Szymanowice: A_1–A_2; and possible dating 3. Kołoząb: A_3–B_2; 4. Poświętne: A_3–B_2 and 5. Rawa Mazowiecka: A_2–C_{1a} (after Michałowski 2011 with authors' changes).

a settlement functioning from the 5th century BC to the beginning of the Common Era. Classic Haps-type houses are mostly dated to the older Pre-Roman Iron Age. The similarity of shapes indicates that buildings of this type were erected according to a single, fixed design. All of them included a central row of forked ridge-posts – called *socha* in Polish – which divided the dwelling into two identical sections. The number of posts was usually four, although it was not uncommon to support the roof structure with three or, less frequently, five ridge-posts. The specific structure of Haps-type houses, as well as the frequent occurrence of dugouts alongside these houses, are identified as cultural components of southern origins, found initially among the Celts.[19]

An analogous situation is observable at the other end of central European *Barbaricum*, on the territory occupied by settlers of the Przeworsk Culture. In the settlements of this cultural area a large proportion of buildings were dugouts. It is only recently that scholars began to consider the possibility of long surface-built dwellings occurring in the same locations. It is too early yet to determine what particular design of such surface structures was characteristic for the Przeworsk Culture. At the moment we can already say that Przeworsk-culture buildings were more reminiscent of the twin-aisle system.[20] Dwellings of this type began appearing already in the earlier Pre-Roman Iron Age, although we cannot exclude the possibility that they were erected at the same time as three-aisle structures (Fig. 3).

DUGOUT DWELLINGS AS A CULTURAL INDICATOR

Dugout dwellings found at settlement sites of the Przeworsk Culture are so numerous, that the literature on the subject treats their presence as an indicator of sorts, marking the borders of the culture's settlement area,[21] as this particular element was present for as long as the settlement process took place.[22] A similar relationship was observed at deposit sites from the region of eastern Celtica.[23] Consequently, due to its ubiquitous character, it is the dugout building and not the surface-built post-structure house that can serve as a mass statistical sample in the process of comparing its construction technology with that of the La Tène Culture.

Reconstructing the designs of prehistoric dugout buildings is possible through the study of contemporary methods of erecting similar structures.[24] In the case of the Przeworsk Culture we are dealing almost exclusively with cavern-based dugouts or half-dugouts. Depending on the construction method used for the surface section (roof), the co-author of this article has divided Przeworsk-type dugouts into two groups – the distinguishing factor being the presence of post pits in the dugout cavern. The division is the following:

Group 1 – dugouts with a postless structure,

Group 2 – dugouts with a post-based structure.

The second group was further divided into two separate sub-groups:

Sub-group 2.1. – dugouts with a regular distribution of post pits within the cavern

Sub-group 2.2. – dugouts with an irregular distribution of post pits.[25]

The dwellings described above are characteristic for the whole period of functioning of the Przeworsk Culture, with different types appearing at different stages of its development. Only three of these are linked to the Pre-Roman Iron Age that is the subject of our study (Fig. 4).

The dugout dwelling most typical for the Przeworsk Culture is the postless dugout. They are believed to account for between 1/4 (K.)[26] to 1/3[27] of all remnants of said culture identified as buildings. At the same time, these dwellings comprise a significant proportion of all recessed buildings.[28] They were used throughout the Przeworsk Culture period[29] and most of them were erected in the Pre-Roman Iron Age, when, apart from a few exceptions, they constituted the dominant building type in human settlements.[30] It seems that at the time this was the essential design for a recessed building. It is possible that the situation was actually the result of the aforementioned process of the Celtic civilization influencing the Przeworsk Culture areas. Postless dugouts appear exclusively in the eastern regions of Celtic colonization.[31] Meduna's typology divides the structures into subtypes E-1 and E-2, the difference being that in the case of subtype E-2 the bottom of the fill layer contains small grooves running alongside the walls of the dugout cavern, interpreted as remains of foundations.[32] Similar objects found in the territory of Slovakia have been classified by T. Kolnik as "type I".[33] In the Przeworsk Culture area the tradition of constructing these dwellings might have spread from the region of Lower

[19] Waterbolk 1982, 134.

[20] Schuster 2012.

[21] Godłowski 1981, 105, 133. – Jadczyk 1983, 190–194. – Kobyliński 1988, 17–22.

[22] Michałowski 2003, 21–79.

[23] Meduna 1980.

[24] Zimmermann 1992, 210.

[25] Michałowski 2011, 90 and Tab. V.

[26] Godłowski 1969, Tab. 1.

[27] Jadczyk 1983, 114–187.

[28] Kobyliński 1988, 25.

[29] Michałowski 2011, Chart 3.

[30] Michałowski 2011, Tab. XLII/A.

[31] Meduna 1980, 57 and Tab. 1.

[32] Meduna 1980, 55–56.

[33] Kolnik 1962, 366–368.

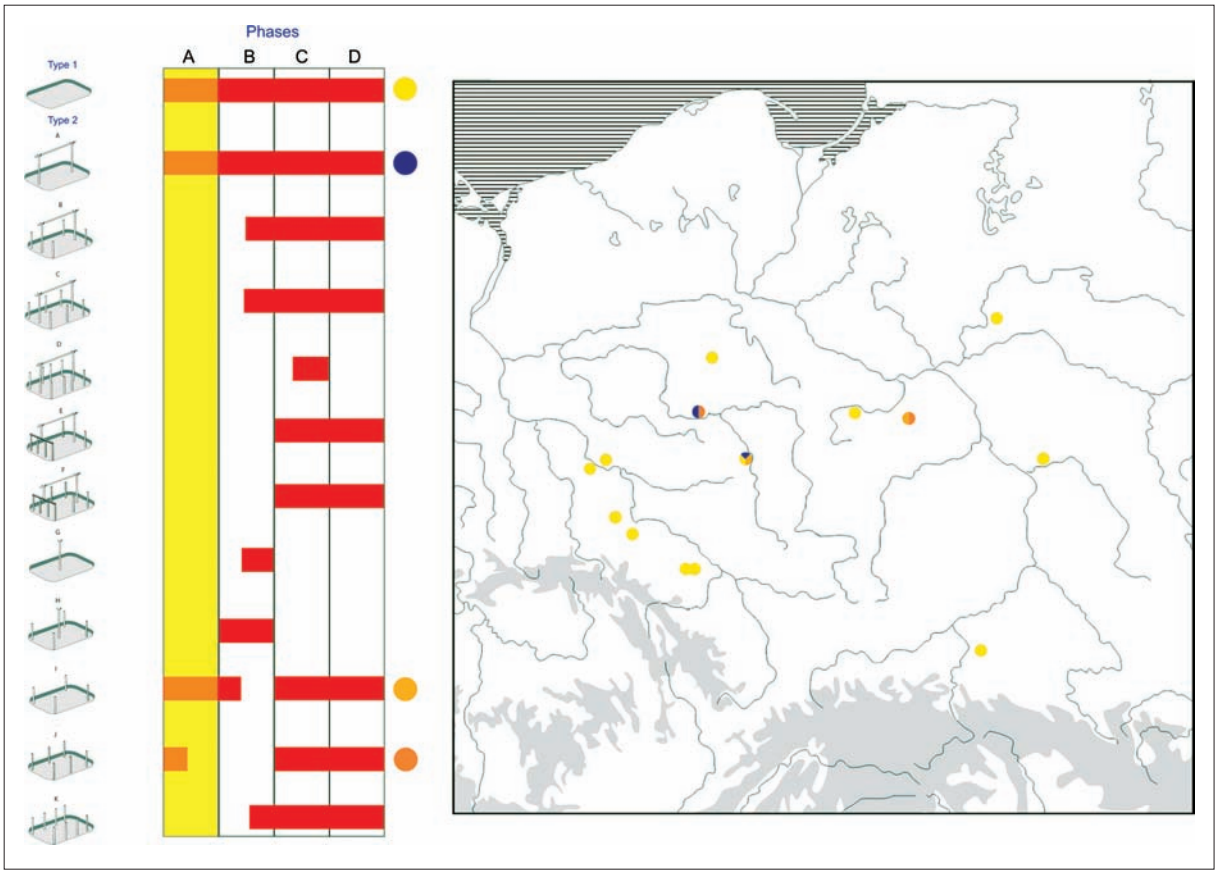

Fig. 4. The chronology of the various types of Przeworsk Culture sunken featured building and spread of the type that evolves in the earlier Pre-Roman Iron Age (phases A_1–A_3) (after Michałowski 2011 with authors' changes).

Silesia, where group 1 dugouts from the Pre-Roman Iron Age are the most numerous. They are found in local settlements and their times of construction range from phase A1 well into the Roman Iron Age period. A similar phenomenon is observable in the Middle Danube region, where construction of postless dugout dwellings continues even after the appearance of the Suebi tribes. E. Droberjar defines them as belonging to type D1.[34] A notable fact is that individual examples of this type of dugout also appear at the time in settlements belonging to the Elbian culture. A. Leube in a joint classification covering the area between the Elbe and the Oder lists these structures as type F1.[35] In the early Roman Iron Age, dugouts without a post-based structure were also erected in the Volhynia region, where they are found among constructions related to the colonization of the Zubrzyca Group.[36]

Another type of dugout from the time period in question is the one with clear traces of post-based structural elements identified within the recessed cavern. These objects differ in terms of the distribution of posts, which formed the roof structure. Their various types can be found throughout the central European *Barbaricum*.[37] Less numerous examples dated to the Pre-Roman Iron Age have also been discovered in settlements of the Przeworsk Culture. Here they were classified as belonging to "group 2" dugouts[38] and out of 11 basic types of dugouts characteristic for the whole Przeworsk Culture period, only 3 – i.e. subtype A, I and J – can be connected to the earliest stages of the culture's development.

The characteristic features for subtype A, in its basic form, are traces of two ridge posts located along the longer axis of the dugout cavern (Fig. 5). The posts supported a crossbeam, forming the basis for the roof covering the interior, with the roof simultaneously forming a slanted extension of the building's earth walls (tent-like structure). Double post dugouts constitute the largest group of objects appearing in the La Tène period in Celtic settlements in central Europe; they were classified by J. Meduna as subtype A-1. This was further differentiated into subtype A-1a and A-1b, based on the presence of a niche-like side extension of the cavern.[39] Individual finds of this type have also been discovered in the Alpine area, in Bavarian and Swiss Celtic settlements. They were

[34] Droberjar 1997, 21, 22.

[35] Leube 1992.

[36] Kozak 1991, 40 and Fig. 19/7, 14.

[37] E.g. Droberjar 1997, 19–26. – Meduna 1980, 46–61. – Zimmermann 1992, 158–191.

[38] Michałowski 2011, 101, 102.

[39] Meduna 1980, 50–53, 57 and Tab. 1.

also present among remnants of a settlement found in Nowa Cerekwia,[40] which formed part of a Celtic enclave related to the Moravian region, functioning in the Głubczyce Highlands.[41] T. Kolnik believes that the presence of these dwellings in Slovakian settlements dated to the beginning of the Roman Iron Age results from the adoption of construction traditions of the La Tène period. Dugouts of this type continued to be constructed in this area, though admittedly in smaller numbers, all the way to the Migration period.[42]

Apart from the classic subtype A dugout, another form of this dwelling, classified as A3 (see Fig. 5), has been identified at sites from the Pre-Roman Iron Age related to the Przeworsk Culture – it includes a single post in the middle of the gable wall. This placement of the post may suggest that the roof was built using the forked ridge-post and crossbeam structure.[43] Dugout dwellings with a single post placed in the middle of the shorter side of the cavern were found in Celtic settlements in the Czech lands, Moravia and Upper Silesia. They were classified by J. Meduna as type A-1a dugout dwelling of the La Tène culture.[44]

Another two subtypes of recessed buildings found in Pre-Roman settlements of the Przeworsk Culture are objects with remnants of structural posts placed only in the corners (subtype I according to A. Michałowski) or possibly also along the longer walls (subtype J). In the case of both these designs there were no traces of a ridge beam typical for a ridge-post and crossbeam construction. This indicates that a different roof design was used, most probably a mono-pitched roof.[45] Postless dugouts have been identified among buildings typical for the central European La Tène culture. They were classified as belonging to type C according to J. Meduna. In the Moravia region such dugouts from the period in question occur only in the Stare Hradisko *oppidum*, and in the Czech lands – mostly in open settlements.[46] In West Germanic lands, objects similar to four-post dugouts without ridge-posts appear in the La Tène period in Hessia, where they are attributed to the settlement of the Chatti.[47] An evolution of four-post dugouts led to the emergence of six-post buildings rejecting the ridge-post roof structure. These, however, are not mentioned in the literature on the subject in relation to the La Tène culture sites.

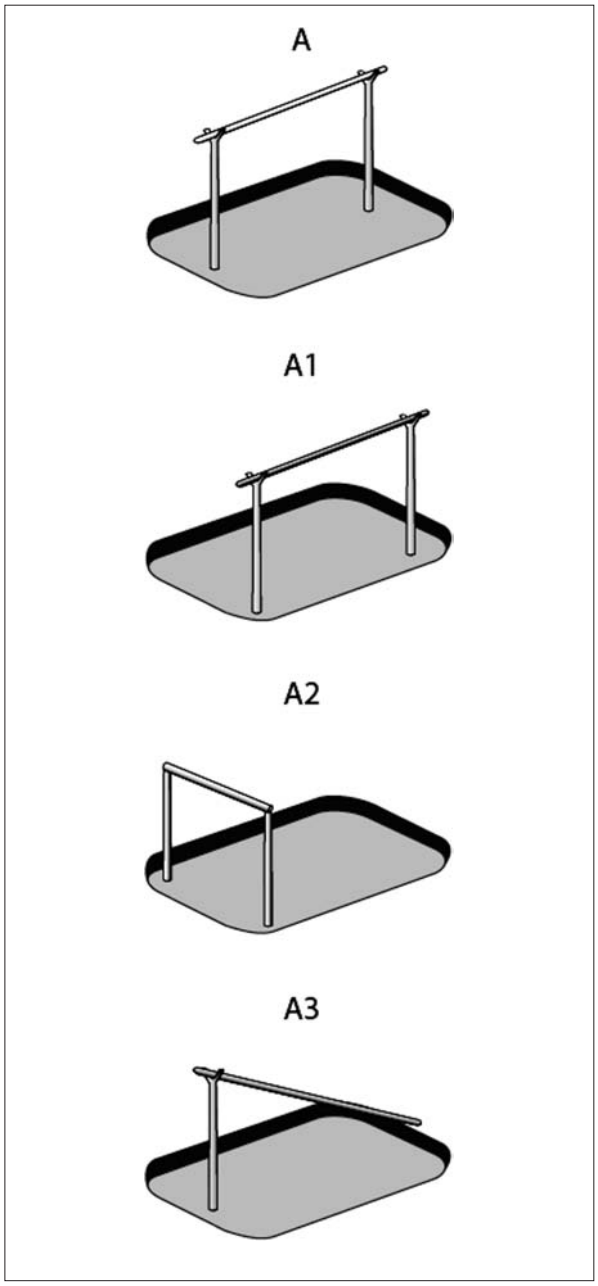

Fig. 5. Subtype A of Przeworsk Culture sunken featured building and its variants (after Michałowski 2011).

CONCLUSION

Similarities in construction technology between the Celtic world and Przeworsk Culture areas in the period in question appear to be greater than between said groups and the area of, e.g. Jastorf Culture settlement. This is evidenced by the already mentioned adoption of various elements and cultural behaviours from Celtic territories.[48] The comparison of building forms leads to a preliminary conclusion that the two cultures also show certain similarities in the sphere of settlement. The available sources do not allow us to make any statements about on-the-ground structures

[40] E.g. Czerska 1959, 28 and Fig. 3.

[41] Woźniak 1970, 103, 104.

[42] Kolnik 1962, 368.

[43] Michałowski 2011, 117, 118.

[44] Meduna 1980, 52, 53.

[45] Szolginia 1975, 69.

[46] Meduna 1980, 55.

[47] Hofmeister 1930.

[48] Dąbrowska 1988, 105–150.

yet, but taking into account the existence of comparable designs of a two-aisle dwelling, we may assume that there were certain formal similarities between them. In the case of dugout dwellings there is a clear analogy between the Przeworsk Culture areas and the Czech-Moravian region of the La Tène Culture. Obviously, it may be argued that these types of structures, due to their simple design, are intercultural and are not bound by the chronological borders of any single era. Nevertheless, the overview presented here proves that the design of dugout buildings from the area of the Przeworsk Culture is reminiscent of structures found primarily throughout eastern Celtica. What is more, similar buildings are rarely found in the same period in Germanic territories, with the exception of West Germanic lands, which are also believed to have been influenced by Celtic colonization.[49]

The dugout design that is the most numerous in Pre-Roman Iron Age settlements of the Przeworsk Culture, which at the same time was widespread throughout the eastern Celtic land, is the postless dugout dwelling. Undoubtedly it did not originate in this period and continues to be used in later times. It is the simplest, most probably primeval "proto-design" for all recessed buildings. Tytus Kolnik believed that it may well have originated in the Palaeolithic Age.[50] Similar cellars with a flat roof placed either directly on the ground or on horizontal supports are utilized in unchanged form to this day.[51] Nevertheless, the popularity of the design in the east of the Celtic world[52] and its omnipresence compared to other types of dugout dwellings of the Przeworsk Culture in the Pre-Roman Iron Age may be more than simple coincidence. It is highly probable that intense Latenization of the Przeworsk Culture and the fact that its settlement sites were affected by the civilizational influence of eastern Celtica is what led to this dugout design becoming the dominant type. The idea would then be able to spread throughout Lower Silesia, where most remnants from the Pre-Roman Iron Age were found. It is notable that with the fall of the Celtic world and progressive "de-latenization" of the Przeworsk Culture, the dugout type in question loses its leading role. But the design is still used throughout the Roman Iron Age period by both the Przeworsk Culture and the post-Celtic societies of the Czech and Moravia region. The situation is different when it comes to dugouts with a post-based structure. It needs to be clearly indicated that they were not often found in Przeworsk Culture settlements of the Pre-Roman Iron Age. It may be expected that further studies will allow us to uncover more dugouts of this type than are currently recorded. But at the moment, taking into account only the modern Greater Poland region, we know of only two dugouts of subtype A; one classic object – Młodzikowo 21, object 56[53] – and one A3 version – Kalisz Piwonice 1, structure 22/I.[54] It is similar in the case of dugout structures classified by A. Michałowski as subtype I – only three examples from the period in question have been found. Two of them, identified as farm building 1 and 2, are from the Antoniewo 1 site, dated to phase $A_1/A_2–B_{1a}$.[55] Another is identified as structure 2 from the first stage of development of the settlement at the Kalisz Piwonice site – it is believed to belong to phase A3 of the Pre-Roman Iron Age.[56] Other examples from the Pre-Roman period include two six-post structures of subtype J: object 61 from the settlement at Młodzikowo 21 site[57] and structure 2 from Antoniewo.[58] Despite their formal similarities to objects found in the Celtic world, the scarcity of examples makes it difficult to accurately trace their origins. However, all these objects have one thing in common – location. They all occur in the northwestern region of the Przeworsk Culture area, which, during the Pre-Roman Iron Age, was under heavy influence from the north and west related to the functioning of the so-called "Bastarnian route".[59] Perhaps this is the reason for the differences in the construction tradition, which are not present at the time in any other area occupied by the Przeworsk Culture (including, in particular, the Silesian and Lesser Poland regions). One notable fact is that it is precisely in this area that we find the majority of remains of surface buildings with a possible three-aisle design.

To sum up, despite a rather modest amount of available sources useful in determining the construction patterns followed by the Przeworsk Culture of the Pre-Roman Iron Age, we may already conclude that the culture is somewhat unique in the context of central European *Barbaricum*. Certain particularities in the field of carpentry are more akin to the eastern Celtic world than the Germanic communities. The most significant indicator is the high proportion of dugout buildings in Przeworsk Culture settlements, the designs of which are clearly reminiscent of objects discovered in the Czech lands and Moravia. An indirect proof that supports the thesis about Celtic influence on Przeworsk Culture construction methods is the fact that changes in the culture's construction traditions may be linked to historical events taking place in northeastern Celtica. In the second half of the 1st century BC, as a result of the Dacian, Roman and finally also Suebian expansion, the Celtic colonization of the area comes to an end. Consequently, it eliminates the region from which influences of La Tène Culture

[49] Waterbolk 1982, 134.

[50] Kolnik 1962, 366–368.

[51] Gauda 1971, 379.

[52] Meduna 1980, 57 and Tab. 1.

[53] Świerkowska-Barańska 1992.

[54] Dąbrowski, Kozłowska 1959.

[55] Skowron 2006.

[56] Dąbrowski 1958.

[57] Świerkowska-Barańska 1992.

[58] Skowron 2006.

[59] Teska 2014.

were transferred to the Przeworsk Culture. The result was a gradual "indigenization" of Przeworsk communities, particularly evident in the forms and style of metal artefacts and pottery. It seems that similar changes also took place in the field of construction. One might expect that for a primitive structure such as the dugout dwelling men would strictly adhere to traditional building methods. But in the early Roman Iron Age the design of the dugout undergoes clear changes. The dominance of postless structures ends and later on, between phase B2 of the early Roman Iron Age and the Migration period, the leading structure type is the six-post dugout with a ridge-post and crossbeam roof structure. Similar designs were never popular in the settlement areas of La Tène culture. Individual examples, classified by J. Meduna as type B-1,[60] can be found in Celtic settlements from the Moravia, Czech and Baden-Württemberg regions. However, they were common for West Germanic settlements, first appearing as early as the 1st century BC,[61] spreading from areas around the Rhine, through central and northern Germany[62] to the territories of the Elbian culture.[63] The presence of these building types in areas occupied by Przeworsk communities, where they had not been constructed before, may be due to the disappearance of Celtic influences which had shaped the culture in the past and the gradual "Germanization" of the Przeworsk group that has been taking place since the turn of the eras.

Was the Celtic construction tradition able to influence the types of structures preferred by Przeworsk Culture settlers? Is it possible that the process of Latenization led to the adoption of specific building designs originating in the Celtic world? Looking at the similarities between the buildings of the La Tène and Przeworsk cultures described herein – are they the result of actual influence or simple coincidence? At this stage of research it is impossible to give a satisfactory answer to these questions. Providing such answers will require further in-depth studies on the construction methods of La Tène communities. The ever-growing library of available source materials that compare the remains of buildings of the time found throughout the broadly-defined central European *Barbaricum* will surely facilitate any future research. All these activities are of colossal significance to a better understanding of the specificity of cultural relations and interactions occurring in the La Tène/Pre-Roman period between different civilizations inhabiting the given area. As we have attempted to show in our analysis, learning more about the construction methods of the time may provide us with yet another, unique comparative category useful in further studies.

[60] Meduna 1980, 55, 57 and Tab. 1.

[61] Behm-Blancke 1954, 102 and Fig. 5. – Droberjar 1997, 20.

[62] Guyan 1952, Fig. 7.

[63] Leube 1992, Fig. 7.

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IRON BELTS OF THE DALJ TYPE. A CONTRIBUTION TO THE UNDERSTANDING OF THE MIDDLE LA TÈNE FEMALE COSTUME OF THE SCORDISCI

MARKO DIZDAR – IVAN DRNIĆ

Abstract: A characteristic part of the Middle La Tène Scordiscan female costume is various types of iron and bronze belts, which can often be connected with contemporaneous types from the Carpathian Basin. One such form is the iron belts of the Dalj type, composed of twisted rod-shaped segments with loops, connected with rings, which differ in the shape of iron or bronze buckles. Dalj-type belts most commonly occur at Scordiscan cemeteries, although they were also documented in female graves in the northeastern part of the Carpathian Basin, in Transylvania and at cemeteries in central Europe. They are dated to the late LT B2–C1. Noticeable differences in the shapes of belt buckles bear witness to the individualization of the Middle La Tène female costume, that is, its regionalization.

Keywords: female costume, iron belts, Scordisci, graves, Carpathian Basin, Middle La Tène, identity

A characteristic part of the Middle La Tène Scordiscan female costume is various types of iron and bronze belts, which can often be connected with contemporaneous types from the Carpathian Basin, and sometimes also with those documented in Central Europe and the southeastern Alps. One such type is the iron belts of the Dalj type, which consist of two by two twisted rod-shaped segments with loops at the ends, connected with rings. Iron or bronze buckles that form part of the belts appear in several shapes, although those with two leaf- or spear-shaped parts and a central thickening are the most common. At one end, the buckle is bent into a hook ending with a knob, by which the belt was fastened, while on the other end the buckle is coiled into a loop which may also end with a knob. The buckle is attached to the rest of the belt, which is composed of a number of segments by means of this coiled part with the loop, through which a ring is passed. The end of the belt was sometimes adorned with pendants of various shapes. The described belts were documented at Scordiscan cemeteries, but also in female graves in the northeastern part of the Carpathian Basin, in Transylvania and at cemeteries in central Europe (Fig. 1).

J. Bujna offered a detailed history of research on the iron, bronze and bimetal belts in his work, in which he divided the belts into numerous groups and types with a number of variants.[1] Nevertheless, in view of the structural and compositional elements, three basic groups have been distinguished,[2] in which Dalj-type belts were attributed to the group of belts composed of segments connected with rings.

Dalj-type belts, which are considered as one of the most common types of Middle La Tène female costume, were distinguished by J. Reitinger.[3] Based on the position in grave 24 at the Manching-Steinbichel cemetery, he suggested that they were worn at the chest.[4] This belt type was published in detail in the analysis of the finds from Dalj that had arrived in Berlin, which had probably come from destroyed Middle La Tène Scordiscan cremation graves.[5] Dalj-type belts were considered as one of the most common type of female belts with buckles of the so-called Pannonian variant with two leaf-shaped parts, with bent ends and a thickening in the middle.[6] The described belts were also mentioned by J. Todorović,[7] and they are considered characteristic for the Middle La Tène material culture of the Scordisci,[8] that is, as a type of belt appearing in Middle La Tène graves in the Danubian Basin, but also beyond.[9] Dalj-type belts were also documented in graves in the upper Tisza Basin, but they were nevertheless considered typical for the Scordisci. Interestingly, certain belts from the mentioned cemeteries in the upper Tisza Basin are described as consisting of a combination of twisted rod-shaped and figure-of-eight segments,[10] but here we ought to point out that these finds come from partly destroyed graves.

[1] BUJNA 2011, 2–8.

[2] BUJNA 2011, 65–66.

[3] REITINGER 1966, 203, 231 and Fig. 8/3.

[4] REITINGER 1966, 203.

[5] JENNY 1932, 240.

[6] MAJNARIĆ-PANDŽIĆ 1970, 28, 47.

[7] TODOROVIĆ 1974, 78.

[8] GUŠTIN 1984, 340 and Suppl. 1/56. Interestingly, D. Božič does not mention the belts of the Dalj type in his classification of the Scordiscan material culture: BOŽIČ 1981. In the same vein, belts of this type were not found at the largest Scordiscan cemetery excavated to date, at Karaburma: TODOROVIĆ 1972, where only female grave 34 can be securely dated to LT C1.

[9] KULL 1992, 158.

[10] HELLEBRANDT 1999, 193. – RUSTOIU 2002, 93–94.

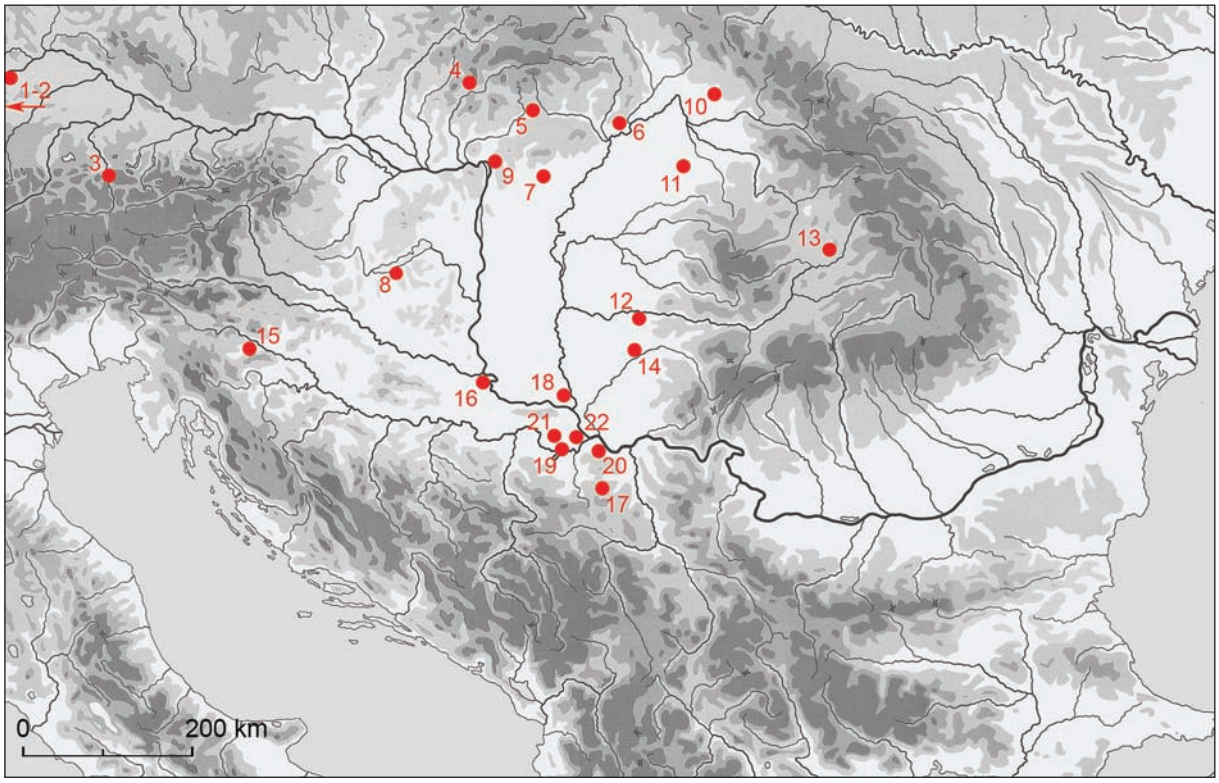

Fig. 1. Distribution of Dalj type iron belts (graphic: I. Drnić and M. Dizdar).

J. Bujna distinguished belts of the Dalj type into his Gk-G group with two variants, in which one consists of belts with iron segments, while in the other the segments are of bronze. He dated the belts to the beginning of LT C1.[11] However, the belt from cremation grave 29 at the Radovesice cemetery, distinguished as a separate variant (Gk-G-b), is, in fact, the remnant of a belt composed of bronze segments connected with bronze chains (group Gk-E2B). On the other hand, the described belt was distinguished at the Radovesice cemetery as type GF10 and dated to LT C1b.[12] Dalj-type belts are further mentioned in the analysis of belts from the Curtuişeni cemetery.[13] Interestingly, belts of a similar shape are also found west of the Alps, but in warrior graves (Nanterre).[14]

Most of the finds of Dalj-type iron belts known to date come from Scordiscan cemeteries. However, their context is unknown, except in the case of a cremation grave from Feudvar, which shows that the other belts probably also belonged to female cremation graves dated to LT C1. The Dalj cemetery, probably a female cremation grave, yielded a belt that consisted of 13 segments connected with rings (Fig. 2).[15] An iron

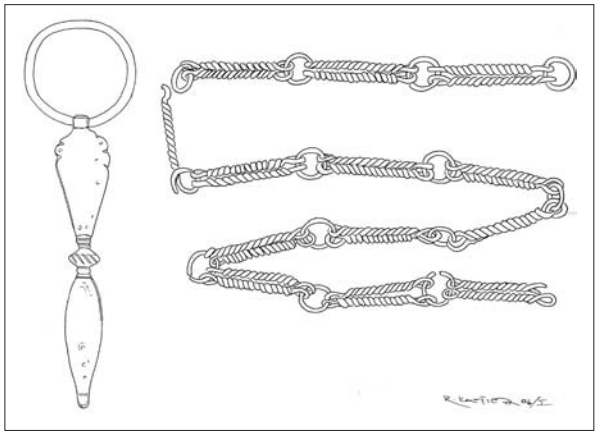

Fig. 2. Belt from Dalj (after Jenny 1932).

buckle with two leaf-shaped parts and discoidal ribbed thickening in the middle quite likely belonged to that belt. One end of the buckle, slightly bent, probably ended with a hook with a knob, while at the other end the buckle is coiled into a loop, through which passed the ring by which the buckle was attached to the belt.[16] Incidentally, the buckle was erroneously attributed to a special group of spear-shaped socketed buckles, which appear during LT B2–C1 around the Danube Bend and in the upper Tisza Basin, with individual finds in the territory of the Scordisci.[17]

[11] Bujna 2011, 97, 139 and Fig. 40.

[12] Waldhauser 1987, 128 and Pl. 25/6–7.

[13] Teleagă 2008, 110 and Footnote 22.

[14] Rapin 1991, 325. – Rapin 1995, 278 and Fig. 3A/6. – Mathieu 2013, 84 and Fig. 2.

[15] Jenny 1932, 240 and Fig. 2/1. – Filip 1956, Fig. 42/4. – Reitinger 1966, 196, 203 and Fig. 8/3.

[16] Jenny 1932, 240 and Fig. 1/3.

[17] Teleagă 2008, 107–108 and Fig. 10.

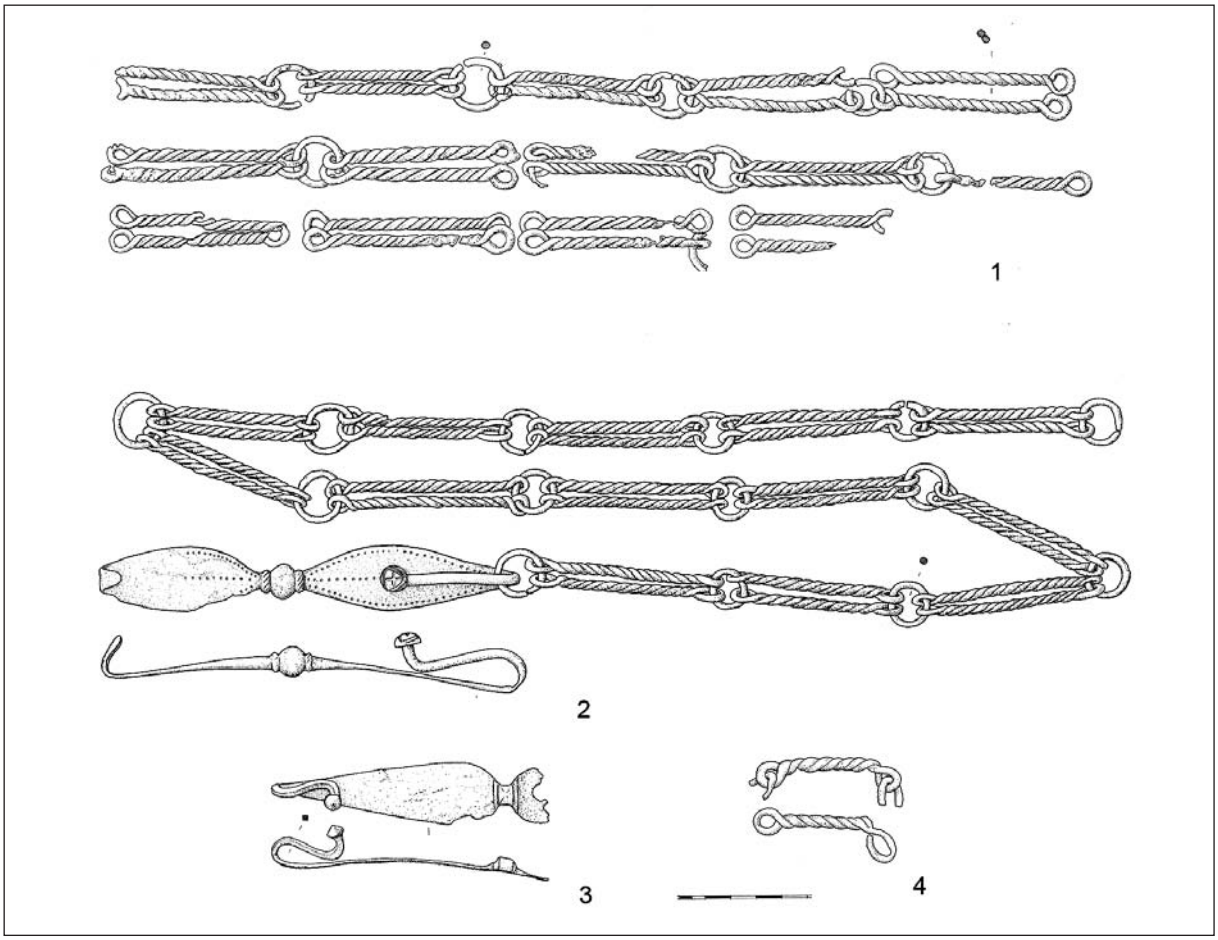

Fig. 3. 1–2. Belts from Kupinovo (AMZ, P-20772, P-15707, P-15708; drawing: I. Krajcar). – 3. Belt buckle from Kupinovo (AMZ, P-15736; drawing: I. Krajcar). – 4. Segment of the belt from Dalj (AMZ, P-4711; drawing: I. Krajcar).

Middle La Tène finds discovered in association with the belt in Dalj, which in all likelihood belonged to another warrior cremation grave,[18] belong to LT C1 and point to the existence of a Scordiscan cemetery. The Archaeological Museum in Zagreb keeps another segment from Dalj with two twisted rods connected with rings (Fig. 3/4), which probably also comes from a destroyed La Tène grave (AMZ, P-4711).

The only belt with known circumstances and context of discovery was documented at Feudvar. Female cremation grave 1 yielded a belt composed of 17 segments connected with rings (Fig. 4). There are two pendants at the end of the belt. It also contains a bronze buckle, bent at one end into a hook ending with a knob, while the other end is damaged. The buckle is slightly thickened in the middle. The grave, which also yielded a small pot and fragments of molten cobalt-blue glass, was dated to LT C1.[19] The buckle is described as having the shape of spear-shaped buckles with a socket at the other end, for which an analogy was provided in the spear-shaped iron buckle from Early La Tène grave G-3 982 at Pećine.[20] Nevertheless, similarly to buckles from other Scordiscan sites, this buckle was probably coiled into a loop at the end.

The cemetery in Kupinovo yielded two iron belts of this type with twisted rod-shaped segments connected with rings (13 and 14 segments respectively) (Fig. 3/1–2). Neither of the two belts has a buckle,[21] although the iron buckle composed of two leaf-shaped parts and connected in the middle with a knob probably belonged to one of the belts. One end is coiled into a loop with a semiglobular thickening at the end, which is decorated with a cross and through which a small ring was passed, while the other end was coiled into a strap-shaped hook. Punched dots decorate the edge and the middle of the leaf-shaped parts of the buckle (Fig. 3/2).[22] The cemetery also yielded a buckle with one preserved leaf-shaped half, coiled into a loop ending with a conical thickening.

[18] Jenny 1932.

[19] Kull 1992, 154 and Pl. 58/11–12. – Rustoiu 1996, 112 and Fig. 68/1–2. – Rustoiu 1997, 153 and Fig. 3/1–2. – Rustoiu 2002, 94 and Fig. 54/1–2.

[20] Jovanović 1984, 74 and Fig. 7/6.

[21] Majnarić-Pandžić 1970, 28, 82 and Pl. X/9. – Drnić 2015.

[22] Majnarić-Pandžić 1970, 28, 82 and Pl. X/7. – Todorović 1974, Fig. 119/down. – Drnić 2015.

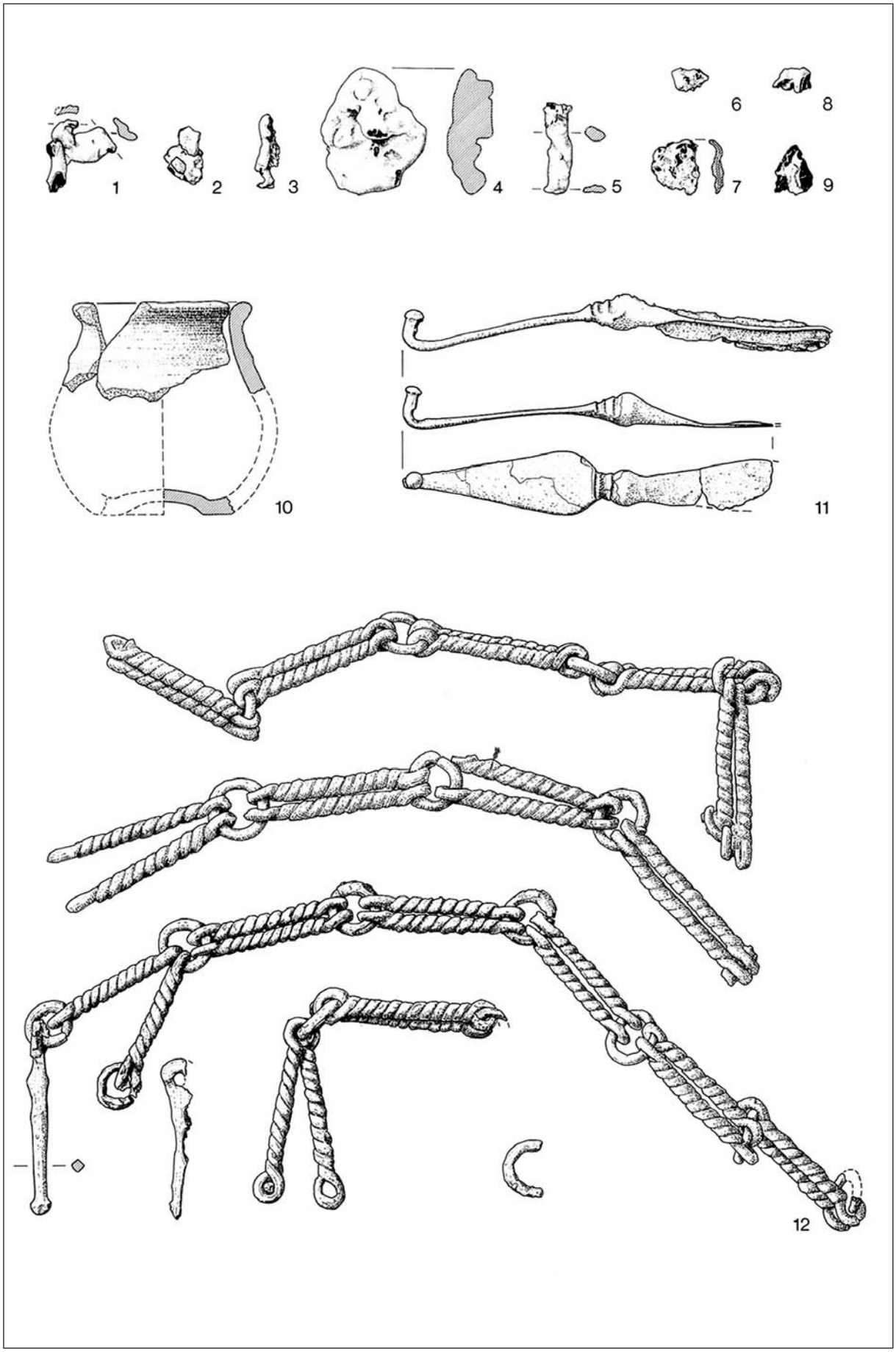

Fig. 4. Grave 1 from Feudvar (after KULL 1992).

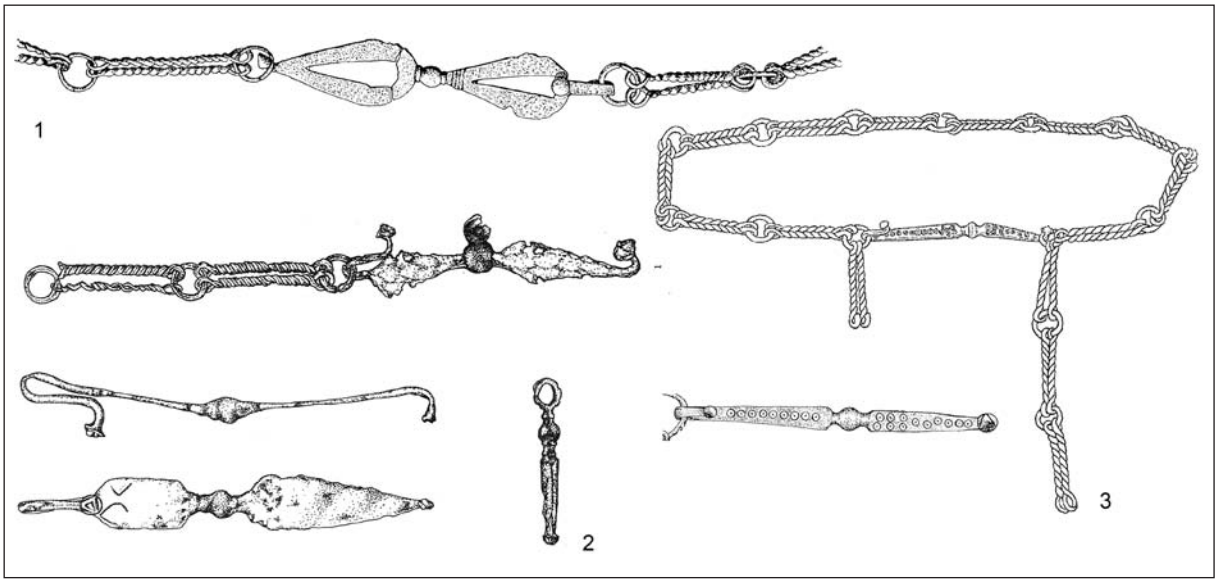

Fig. 5. 1. Belt from Subotište (after Todorović 1974). – 2. Belts from Aranđelovac (after Vukmanović 1994). – 3. Belt from Ritopek (after Todorović 1971).

The rectangular thickening in the middle is decorated with an X-motif, while the other leaf-shaped half was probably perforated (Fig. 3/3),[23] like the buckle from Subotište, which consists of two leaf-shaped perforated parts with a knob in the middle (Fig. 5/1). One end terminates with a hook and knob, while the other is coiled into a loop, which likewise ends with a knob. A ring attached to the loop connects the buckle with the segments, a total of 17.[24]

The cemetery in Surčin yielded a belt with an iron buckle composed of two elongated rhombical parts connected with a knob in the middle (Fig. 6/1). The buckle is coiled into a hook with a knob at one end, while the other end is coiled into a loop that also terminates in a knob. The ring passing through the loop connects the buckle with six preserved segments.[25] An anthropomorphic figure, composed of a series of punched dots, is depicted on one sheet, and there is another identical decoration along the edge, which is a truly unique occurrence on the buckles of belts of the Dalj type (Fig. 6/1a). Even though the surface is partly damaged, the depictions of the legs, dress, stylized body and head, and perhaps also the arms, are clearly visible. More or less stylized anthropomorphic depictions are rare in the material culture of the Scordisci, and can be found on various objects: buckles of segmented bronze belts,[26] in the shape of stamps on swords,[27] or on the pommel of a bent sword from Kupinovo,[28] to which we can add several known bronze figurines.[29] However, the motif that bears the closest resemblance to the one from Surčin is found on a fragment of a Late La Tène pot from Gomolava, which probably depicts a female figure (Fig. 6/2). The body and dress are depicted with two triangles, with the legs extending below, and the neck and extremely stylized circular head depicted above the triangles. The depiction of one of the arms was also preserved, and the figure is holding an indeterminate object in its hand. The stylized human figure is contained within a metope decoration on the neck of the pot. It was created by polishing, characteristic for the LT D phase.[30]

Two further belts come from Aranđelovac or the surrounding area (Fig. 5/2). That these were probably two belts is corroborated by segments of various lengths, but above all by the finds of two buckles. One belt contains an iron buckle consisting of two leaf-shaped parts with a bronze knob in the middle, with a setting for enamel or another material. The buckle was bent into a hook with a knob at one end, while at the other it was coiled into a loop, which also

[23] Drnić 2015.

[24] Todorović 1968, Pl. XLIII/1. – Todorović 1974, Fig. 19. – Todorović 1975, 217 and Fig. 20.

[25] Majnarić-Pandžić 1970, 47, 97 and Pl. XLV/3. – Todorović 1974, Fig. 120.

[26] Novi Banovci: Majnarić-Pandžić 1970, 37, 89 and Pl. XXVI/4–4a. – Jovanović 1987, Pl. LXXXIII/1.

[27] Odžaci: Todorović 1974, 58 and Figs. 34, 64. – Guštin 1984a, 127 and Pl. 7/1.

[28] Majnarić-Pandžić 1970, 85–86 and Pl. XVIII/3–3a. – Todorović 1974, 82 and Fig. 63. – Jovanović 1987, 834 and Pl. LXXXIII/2a–2b. – Szabó, Petres 1992, 113, Cat. No. 126 and Pl. 118/3.

[29] Dalj, Osijek: Šimić 1995, 43, Cat. No. 5.20.

[30] Jovanović, Jovanović 1988, 145 and Pl. XXII/5a–5b. Similar depictions were documented on various artefacts, for instance on ceramic pots and belt buckles, in the eastern part of the Carpathian Basin, but also in the areas east of the Carpathians: Plantos 2003.

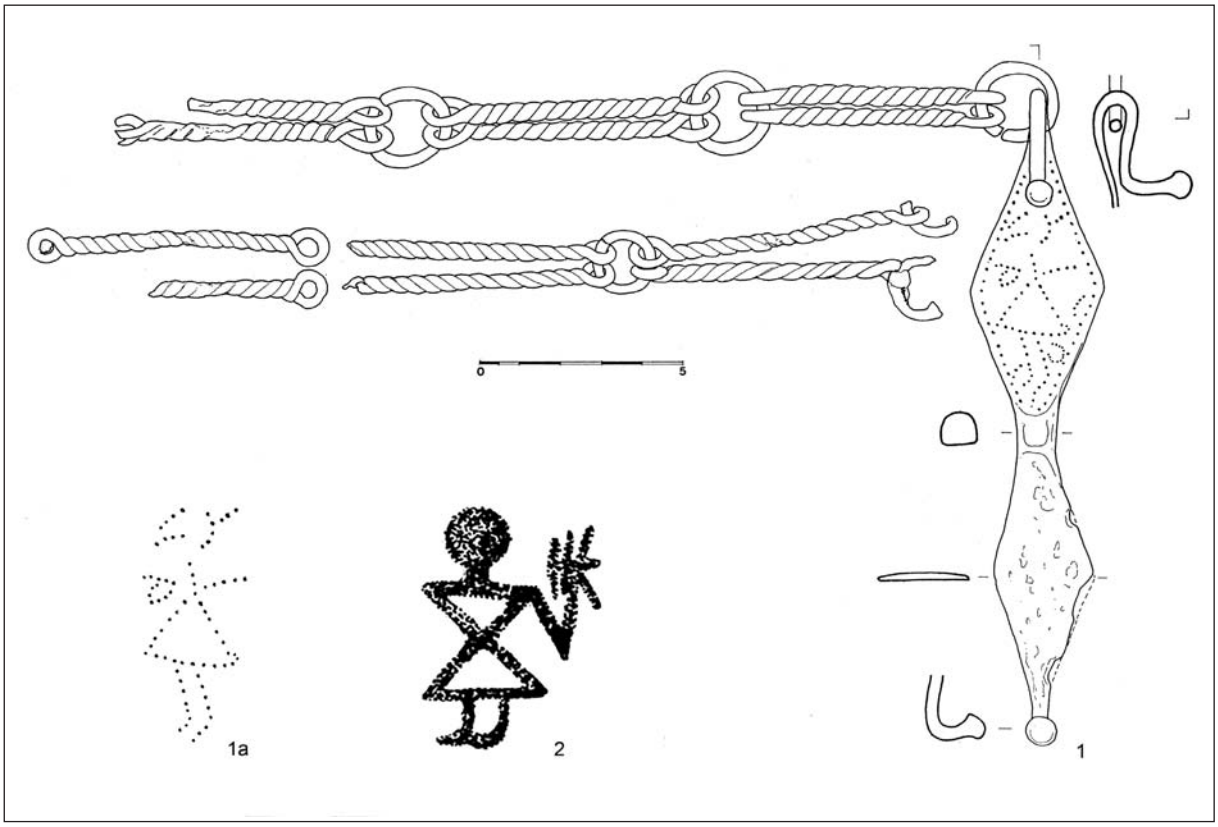

Fig. 6. 1. Belt from Surčin (AMZ, P-18931; drawing: I. Krajcar). – 1a. Anthropomorphic depiction on the buckle of the belt from Surčin (graphics: I. Drnić). – 2. Anthropomorphic depiction on the ceramic pot from Gomolava (after Jovanović, Jovanović 1988).

ends with a knob and through which a ring passes.[31] The other iron buckle has a similar shape, but it lacks a knob on the hook, while the loop ends with a knob decorated with a triangle. The body of the buckle is decorated with punched dots.[32] Four pendants with a ring and semiglobular knob on the bottom probably also belonged to belts.[33] The presented finds from Aranđelovac are dated to LT C2,[34] although the punctated belt, of the kind found in male warrior graves, would point to the existence of graves from LT C1.

The iron belt from Ritopek-Dalekovod (Fig. 5/3) differs from the mentioned belts from the distribution area of the Scordisci in the shape of the buckle. The belt consists of 15 segments, while the buckle is composed of two narrow trapezoidal parts with a spherical knob in the middle between them. At one side the buckle ends with a hook ending with a knob decorated with the motif of a triangle, while at the other end the buckle is coiled into a loop that likewise ends with a knob. The body of the buckle is decorated with a series of concentric circles on one half, while the other is decorated with concentric circles organized around the central part in three series of two circles, while towards the end of the buckle the circles are lined up in a single row.[35]

Besides the Scordiscan distribution area, Dalj-type iron belts were also found at cemeteries in the Tisza Basin (Fig. 1). For instance, a belt composed of 14 segments of varied length, which were connected with rings comes from the Bodroghalom cemetery, probably from a destroyed grave. The belt may have also included two pendants with rings near the top, with a rectangular middle part and a profiled end.[36] It has not been entirely excluded that the bent iron buckle with a thickened middle part may have also belonged to the belt.[37] Female cremation grave 12, dated to LT C1, with a pair of bronze fibulae with three figure-of-eight loops on the bow and a spring with six coils connected on the inside, also yielded a belt partly composed of figure-of-eight segments clasped with a ring in the middle and connected with rings of relatively small diameter, while the rest of the belt consists of series of two by two twisted

[31] Vukmanović 1994, 57 and Fig. 1.

[32] Vukmanović 1994, 57 and Fig. 1a.

[33] Vukmanović 1994, 57 and Fig. 1b.

[34] Vukmanović 1994, 60.

[35] Todorović 1967, 156 and Pl. V/14. – Todorović 1968, 148 and Pl. XXXIV/2. – Todorović 1971, 159 and Pl. LXXIII/1, Pl. XCII/58. – Todorović 1974, Pl. VIII and Fig. 57.

[36] Hellebrandt 1999, 185–186, 193–194 and Pl. LXV/1a–c, 4. – Bujna 2011, 97 and Fig. 40/4.

[37] Hellebrandt 1999, 193 and Pl. LXV/3.

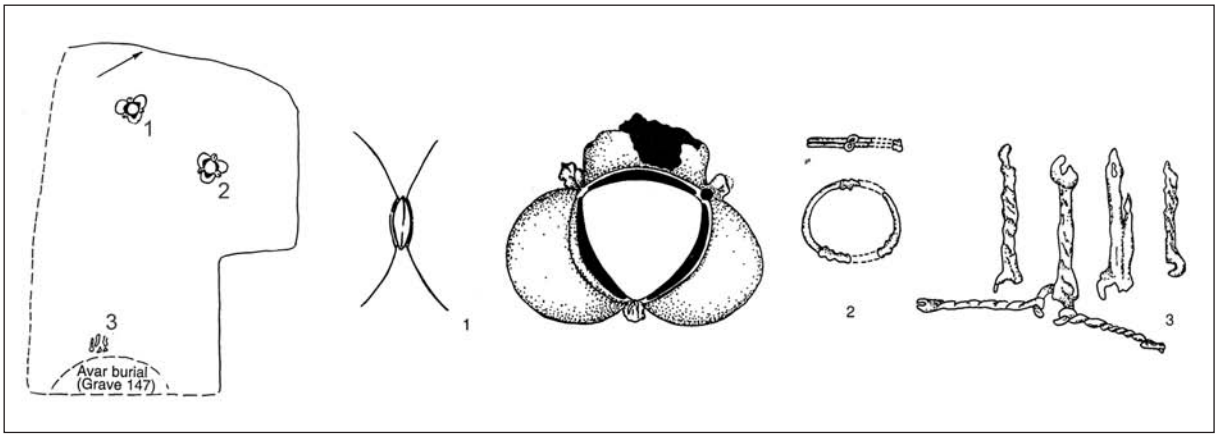

Fig. 7. Grave 8 from the Vác cemetery (after Hellebrandt 1999).

rod-shaped segments, which are likewise connected with rings.[38] The exact arrangement of the segments in the belt cannot be reconstructed with certainty, while the buckle is missing. Yet another grave, the partly destroyed cremation grave 17, likewise dated to LT C1, yielded a belt that was mostly composed of figure-of-eight segments clasped with a ring in the middle, and of two preserved twisted rod-shaped segments.[39] The damaged female inhumation grave 8 at the Vác-Gravel pit cemetery, also dated to LT C1, yielded a pair of three-domed bronze anklets and a bronze ring, in association with twisted rod-shaped segments connected with rings (Fig. 7).[40] The same date was attributed to the belt from female cremation grave 654 from the Ludas-Varjú-dűlő cemetery, which additionally yielded a bronze fibula with figure-of-eight coils on the foot. The preserved parts of the belt feature two by two twisted segments connected with rings. The belt was preserved as a series of small parts, with the remains of a hooked buckle ending with a knob visible on one end, while the other probably ended with a ring, similar to the buckles from Romanian sites. The belt was attributed to type Rapin A6/A7.[41] The analysis of the belt from the Vác cemetery includes a reference to iron belts from graves 9 and 17 of the Nádudvar-Töröklaponyag cemetery,[42] however, whether these belts belong to the Dalj type is open to doubt. In the same vein, a narrow twisted segment with a ring was found at Ordacsehi-Csereföld, a site located south of Lake Balaton. Even though the segment was attributed to a Cernon-sur-Coole-type belt,[43] which often appear in warrior graves of LT B2 date, in view of the length of the segment and the preserved ring, it is possible that this is in fact a part of a Dalj-type belt.

In addition to sites in Hungary, Dalj-type belts were documented at Slovakian sites. For instance, female cremation grave 2/74 from the Drňa cemetery, dated to late LT B2, yielded twisted rod-shaped segments, about 7 cm long with rings,[44] which probably belong to a Dalj-type belt, even though the grave also contained an iron spear-shaped belt of a type otherwise unknown on belts from Scordiscan sites. Two twisted segments with loops at the ends from the site of Slatina nad Bebravou have been attributed to a belt of this type.[45]

A special role for the dating of iron belts of the Dalj type is reserved for finds from Romanian sites, with noticeable differences in the way the buckles are shaped with respect to the belts from Scordiscan cemeteries. Female cremation grave 62 at the Fântânele-Dâmbu Popii cemetery yielded an iron belt composed of 15 segments connected with rings. The narrow rectangular buckle is bent at one end into a hook ending with a knob, while the other end features a ring by which the buckle is attached to the belt. The buckle has another narrow thickening close to the ring. The belt ends with two pendants suspended from the last pair of segments.[46] The belt, together with several other finds, exhibits no traces of burning, while the rest of the finds from the grave were damaged by the cremation with the deceased women, so that two sets of female costume and jewellery were distinguished within the grave. In view of the numerous finds from the grave pointing to the burial of a prominent member of the community, the grave was dated to LT C1.[47] The same date was attributed to the

[38] Hellebrandt 1999, 189, 193 and Pl. LXIX/1. – Bujna 2011, 97.

[39] Hellebrandt 1999, 191, 193 and Pl. LXX/10–11. – Bujna 2011, 97.

[40] Hellebrandt 1999, 59, 87–88 and Pl. XXVI/3. – Bujna 2011, 97 and Fig. 40/3.

[41] Szabó, Tankó 2012, 15, 111 and Fig. 163, Pl. I/5.

[42] Mesterházy 1966, 45–46. – Hellebrandt 1999, 87.

[43] Szőllősi 2013, 30 and Fig. 2/5.

[44] Furmánek, Sankot 1985, 281, 284–285 and Fig. 10/7–12.

[45] Pieta 2010, Fig. 4/14–15. – Bujna 2011, 97 and Fig. 40/1.

[46] Rustoiu 1996, 112 and Fig. 113/1. – Vaida 2006, 301 and Fig. 7/1. – Rustoiu, Megaw 2011, 220, 226 and Fig. 3/3. – Rustoiu 2013, 90 and Fig. 4B/7.

[47] Rustoiu, Megaw 2011, 226. – Rustoiu 2013, 90 and Fig. 4B.

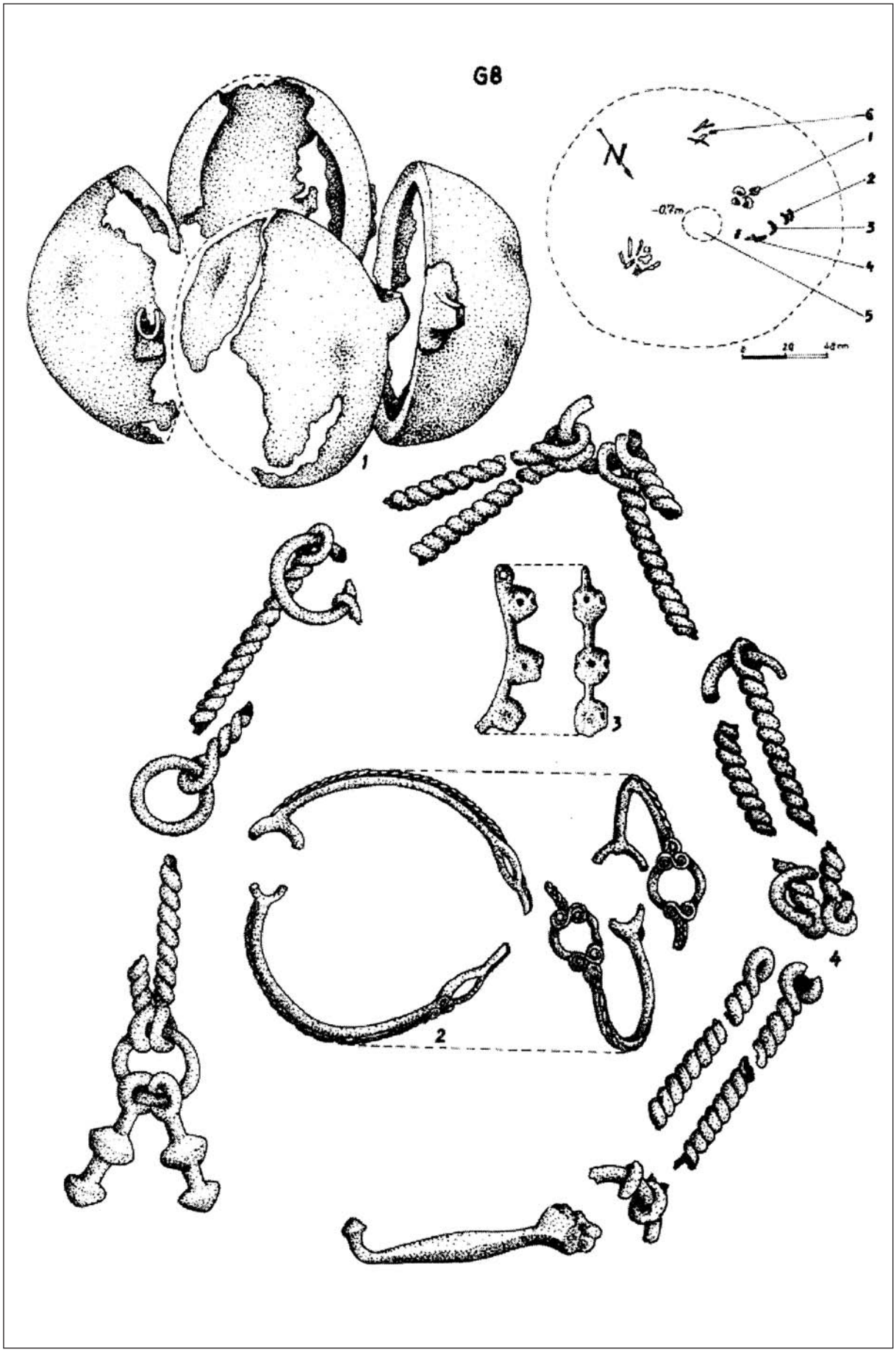

Fig. 8. Grave 8 from the Orosfaia cemetery (after VAIDA 2000).

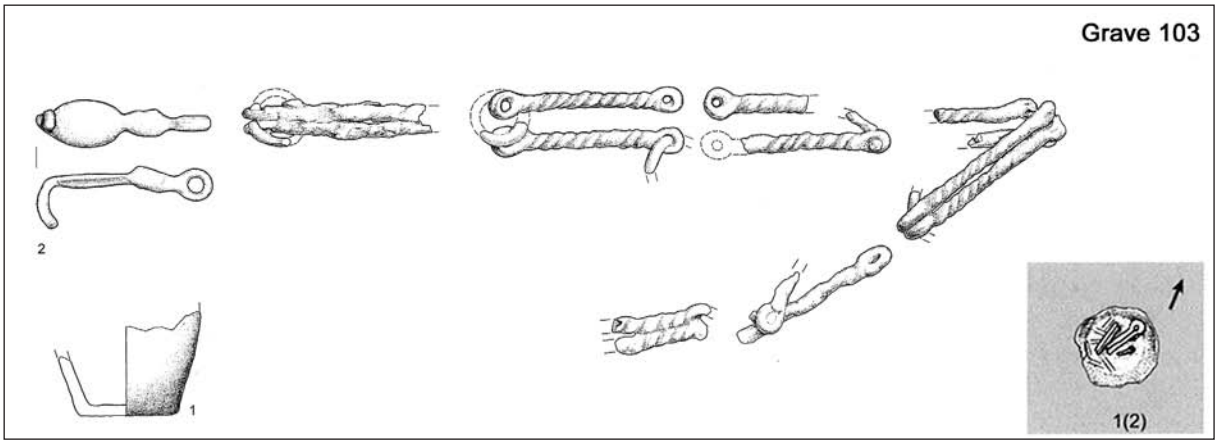

Fig. 9. Grave 103 from the Kapiteljska njiva cemetery (after Križ 2005).

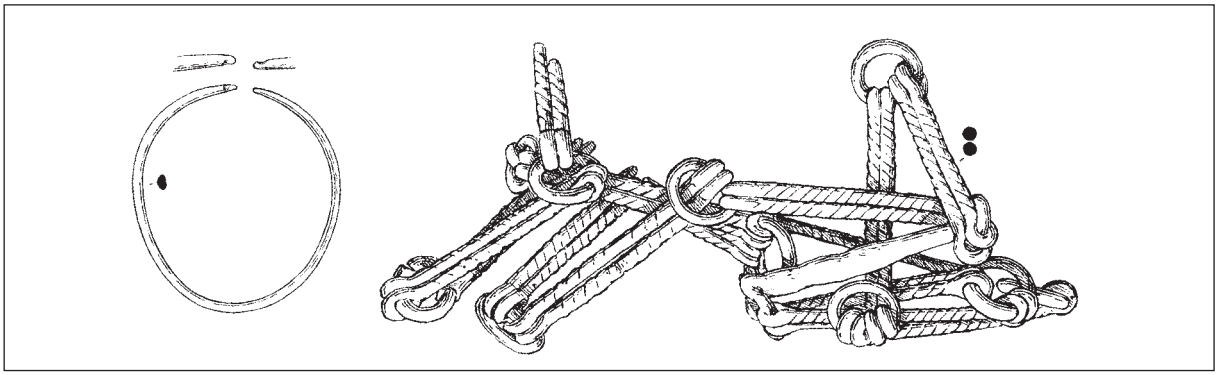

Fig. 10. Grave 11 from the Marfely cemetery (after Čižmářová 2013).

belt from female cremation burial 8 from the Orosfaia cemetery, which also yielded a bronze anklet (Fig. 8). The buckle resembles the one from the Fântânele cemetery; that is, at one end it is bent into a loop with a knob, while the other terminates with a ring. The two pendants at the end of the belt are suspended from the ring instead of from the segments, like in the case of the belt from Fântânele.[48] Female cremation grave 67 at the Pişcolt cemetery yielded a belt, distinguished as type E6, which was composed of 14 segments connected with rings. The buckle, similar to other finds from Romanian sites, is coiled into a hook with a knob at one end, while the other half is segmented with transverse grooves and ends with a ring by which it is attached to the rest of the belt. At the end of the belt, a pendant is suspended from the loop of a segment. The grave also contained bronze fibulae and a four-domed anklet, dating the grave to LT C1, that is, the youngest horizon of the cemetery.[49] From other sites in Romania, a bronze belt of this type is mentioned from the Remetea Mare cemetery.[50] The Galliš-Lovačka site, more precisely its complex L-56, yielded narrow twisted iron segments with loops at the ends, which may have belonged to a Dalj-type belt. A part of an iron buckle bent into a small hook at one end was also preserved.[51]

Iron belts of the Dalj type were also documented at sites outside the Carpathian Basin. For instance, in grave 103 at Kapiteljska njiva the cremated remains of the deceased woman were placed in a ceramic pot on which an iron belt was placed, composed of a pair of twisted segments connected with rings (Fig. 9). The buckle is oval in the front part, with the end coiled into a hook, while on the other side it has a small transverse ring that connected the buckle to the rest of the belt. Although the grave did not yield any other find that would help date it with a greater precision,[52] it probably belongs to LT C1.

An iron belt composed of two twisted rod-shaped segments connected with rings was found at the Marfely (Bučovice) cemetery in female inhumation

[48] Vaida 2000, 138, 143–144 and Fig. 9/4.

[49] Németi 1992, 70, 107 and Fig. 9/5. – Németi 1993, 128. – Rustoiu 1996, 112 and Fig. 68/3. – Rustoiu 1997, 153 and Fig. 3/3. – Rustoiu 2002, 93 and Fig. 54/3.

[50] Rustoiu 1996, 112. – Rustoiu 1997, 153. – Rustoiu 2002, 94.

[51] Kobal 1995–1996, 144–146 and Fig. 2/6–8, 8a–b.

[52] Križ 2005, 43 and Fig. A on p. 34, Pl. 2/2.

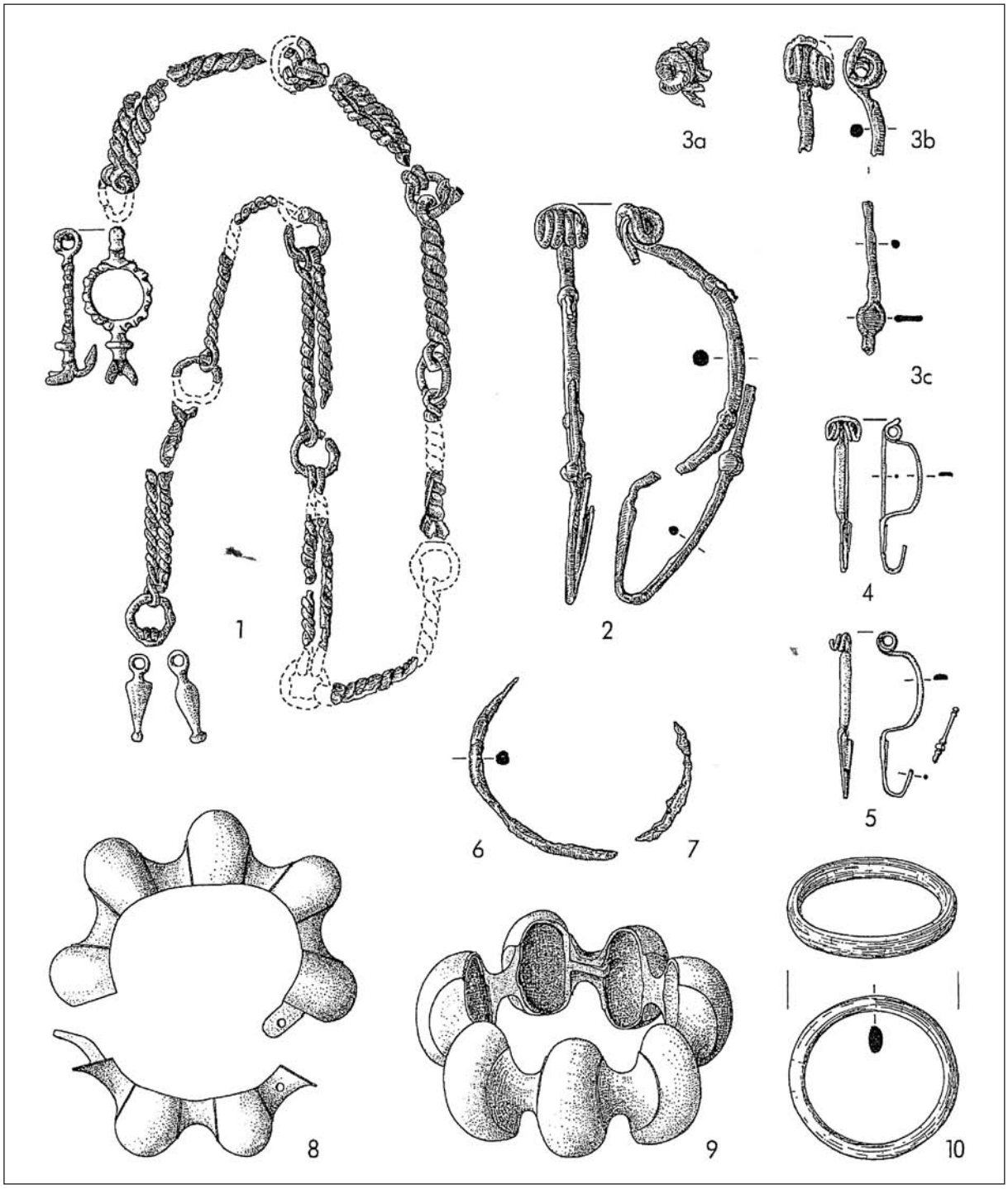

Fig. 11. Grave 24 from the Manching-Steinbichel cemetery (after Krämer 1985).

grave 11 (Fig. 10). The grave also contained a penannular bronze bracelet.[53]

Iron belts with segments shaped in the same way, only with differently shaped buckles, were also found at cemeteries north of the Alps (Fig. 1). For instance, the already mentioned female inhumation grave 24 from the Manching-Steinbichel cemetery contained a belt with twisted rod-shaped segments on the chest of the deceased woman (Fig. 11). The belt features a bronze zoomorphic buckle with a ring in the middle, whose exterior is ribbed. The small transverse ring at the end of the buckle connected it with the segments. The belt has two pendants at the end. The grave was dated to the end of LT B2 – beginning of LT C1.[54] From one of the destroyed graves at the Manching-Hundsrucken

[53] Bujna 2011, 97 and Fig. 40/2. – Čižmářová 2013, 148 and Pl. 33/4.

[54] Krämer 1985, 81 and Pl. 13/1. – Bujna 2011, 97 and Fig. 40/5.

cemetery comes a part of an iron belt composed of two by two narrow and long twisted segments connected with rings.[55] The mentioned belts are dated to horizon 5 of southern Bavaria, that is, the late LT B2 phase.[56]

Besides Manching, an iron belt of this type with a bronze buckle was also found in grave 216 at Dürrnberg, which contained a female burial in a tomb with several deceased persons. The belt consists of a pair of twisted segments connected with rings, which make up the body of the belt with iron figure-of-eight segments, clasped in the middle. Segments of various shapes are combined in an irregular arrangement. The buckle has a ribbed ring in the middle part. At one end of the buckle there is a loop through which passes a ring that connects it with the segments, while the other ends with a small hook. The grave is dated to the beginning of LT C.[57] The mentioned belt from Dürrnberg, as well as those from Manching, are compared with the finds from cemeteries in Slovakia and Hungary, as well as with Scordiscan finds, however, there are noticeable differences in the shapes of the buckles.[58]

Iron belts of the Dalj type, with iron or bronze buckles, are a regular element of Middle La Tène female costume in the eastern part of the Carpathian Basin, including the Scordisci (Fig. 1). Several variants can be distinguished with regard to the shape of the buckles, two of which are characteristic precisely for the Scordisci. Most belts feature an iron buckle composed of two leaf-shaped parts with a thickening in the middle. One end is bent into a hook and the other is coiled into a loop, both ending with knobs – the Feudvar variant, as the most common variant at Scordiscan sites. Perforated leaf-shaped parts are found on the buckles from the belts from Kupinovo and Subotište – the Subotište variant. Dalj-type belts were also found at cemeteries in the upper Tisza Basin. Interestingly, the Bodroghalom cemetery yielded belts that, besides a pair of twisted segments, also contain figure-of-eight segments. Such a combination also appears on the belt from grave 216 in Dürrnberg. Unfortunately, the buckles from the belts at cemeteries in the Tisza Basin are not preserved. In Transylvania (Fântânele-Dâmbu Popii and Orosfaia) and at the Pişcolt cemetery there are belts with narrow buckles with a ring in the lower part – the Fântânele variant, which was likewise dated to LT C1. Belts with bronze buckles that have a ribbed ring in the central part belong to a special variant – the Manching variant. These belts were dated by finds in closed grave contexts to late LT B2–C1. Interestingly, the belt from Kapiteljska njihva, as presently the only find in the territory of the Mokronog group, approaches the finds from Manching and Dürrnberg based on the end of the buckle with a small ring; however, the iron buckle has a somewhat different shape.

Even though the context is lacking for most finds from the area of the Scordisci, based on the discovery in grave 1 at Feudvar, but also at Romanian sites, Dalj-type belts can be dated to LT C1. Their appearance, however, was documented already towards the end of LT B2 (Manching-Steinbichel grave 24 and Drňa grave 2/74), although their number is greatest in LT C1,[59] the phase to which we date the so far known belts from Scordiscan sites. Interestingly, coiled silver and bronze segments shaped in this way were documented as components of chains that linked fibulae during LT D in the Padea-Panagyurski kolonii group.[60]

Considering that contextual data and all information about associated finds in the graves are missing for almost all the belts from the distribution area of the Scordisci, with the exception of grave 1 at Feudvar, nothing more can be concluded about the social position of the women who wore them. At the Vác and Bodroghalom cemeteries, Dalj-type belts were found in graves with only a few other objects, while on the other hand, grave 654 at the Ludas cemetery stands out by the number of finds, pointing to the burial of a prominent person. A similar conclusion can be drawn about grave 62 from the Fântânele cemetery, as well as other finds from Romanian cemeteries (Orosfaia, Pişcolt) and the grave from Drňa. All of this shows that we cannot decidedly assert that Dalj-type belts were exclusively worn by women who figured prominently in the community. Noticeable differences in the shapes of the buckles, on the other hand, bear witness to the strong individualization of the female Middle La Tène costume, as well as its regionalization.

LIST OF SITES WITH FINDS OF IRON BELTS OF TYPE DALJ

Germany

1. Manching-Steinbichel, grave 24 (Krämer 1985, 81 and Pl. 13/1. – Bujna 2011, 97, Fig. 40/5).
2. Manching-Hundsrucken (Krämer 1985, 97 and Pl. 36/9).

Austria

3. Dürrnberg, grave 216 (Moser, Tiefengraber, Wiltschke-Schrotta 2012, 112, 197–198).

Slovakia

4. Slatina nad Bebravou (Pieta 2010, Fig. 4/14–15. – Bujna 2011, 97 and Fig. 40/1).

[55] Krämer 1985, 97 and Pl. 36/9.

[56] Gebhard 1989, 108 and Fig. 40/20.

[57] Moser, Tiefengraber, Wiltschke-Schrotta 2012, 112, 197–198.

[58] Moser, Tiefengraber, Wiltschke-Schrotta 2012, 198.

[59] Rustoiu, Megaw 2011, 226.

[60] Rustoiu 1996, 112–113. – Rustoiu 1997, 153–155. – Rustoiu 2002, 94. – Rustoiu, Megaw 2011, 226.

5. Drnă, grave 2/74 (Furmánek, Sankot 1985, 281, 284–285 and Fig. 10/7–12).

Hungary

6. Bodroghalom, graves 12 and 17(?) and a stray find (Hellebrandt 1999, 185–186, 189, 191, 193–194 and Pl. LXV/1a–c, 4, Pl. LXIX/1, Pl. LXX/10–11).
7. Ludas-Varjú-dűlő, grave 654 (Szabó, Tankó 2012, 15, 111 and Fig. 163, Pl. I/5).
8. Ordacsehi-Csereföld (Szőllősi 2013, Fig. 2/5).
9. Vác-Gravel pit, grave 8 (Hellebrandt 1999, 59, 87–88 and Pl. XXVI/3).

Ukraine

10. Mukačevo-Galliš-Lovačka (Kobal 1995–1996, 144–146 and Fig. 2/6–8, 8a–b).

Romania

11. Pisçolt, grave 67 (Németi 1992, 70, 107 and Fig. 9/5).
12. Fântânele-Dâmbu Popii, grave 62 (Rustoiu 1996, 112 and Fig. 113/1. – Vaida 2006, 301 and Fig. 9/4. – Rustoiu, Megaw 2011, 220, 226 and Fig. 3/3. – Rustoiu 2013, 90 and Fig. 4B/7).
13. Orosfaia, grave 8 (Vaida 2000, 138, 143–144 and Fig. 9/3).
14. Remetea Mare (Rustoiu 1996, 112. – Rustoiu 1997, 153. – Rustoiu 2002, 94).

Slovenia

15. Novo mesto-Kapiteljska njiva, grave 103 (Križ 2005, 43 and Pl. 2/2).

Croatia

16. Dalj (1. unpublished segment: AMZ P-4711. – 2. Jenny 1932, 240–241 and Fig. 2/1).

Serbia

17. Aranđelovac – two belts (Vukmanović 1994, 57 and Fig. 1–1a).
18. Feudvar near Mošorin, grave 1 (Kull 1992, 154, 158–159 and Pl. 58/11–12).
19 Kupinovo – two belts (Majnarić-Pandžić 1970, 28, 82 and Pl. X/9. – Drnić 2015).
20. Ritopek-Dalekovod (Todorović 1967, 156 and Pl. V/14. – Todorović 1968, 148 and Pl. XXXIV/2. – Todorović 1971, 159 and Pl. LXXIII/1, Pl. XCII/58. – Todorović 1974, Pl. VIII, Fig. 57).
21. Subotište (Todorović 1968, 150 and Pl. XLIII/1. – Todorović 1974, Fig. 19. – Todorović 1975, 217 and Fig. 20).
22. Surčin (Majnarić-Pandžić 1970, 47, 97 and Pl. XLV/3. – Todorović 1974, 178, Fig. 120).

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ARCHAEOLOGICAL STUDIES OF THE LATE IRON AGE IN CENTRAL EUROPE
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THE "SILVER HORIZON" OF THE IDRIJA GROUP. ON LATE LA TÈNE SILVER FINDS FROM THE SOČA REGION

BOŠTJAN LAHARNAR

Abstract: This paper discusses the La Tène silver finds from the Soča Region (Slovenia). The collection of silver finds contains votive plaques, twisted torcs, brooches, earrings, a ring and coins. The items originate from cemeteries and cult places. The assemblage of silver finds reflects very well the rise and the concentration of knowledge of the Late Iron Age Idrija group. The silver finds attest the skills of local craftsmen and point to the use of coinage and writing, also allowing for the possibility that certain sites were marked or organized according to astronomical events. Knowledge of writing and astronomy were likely rare and exclusive skills, reserved for the persons who had a special, priestly status.

Keywords: Soča region, Late La Tène, Idrija Group, Silver finds

INTRODUCTION

The term the Idrija group covers the Late Iron Age period in the region of the Upper Soča River and its tributaries.[1] It is outlined on the basis of data from cemeteries, as well as stray finds and hoard finds.[2] In recent years, the archaeological record has been further expanded by the excavation at the Most na Soči cemetery,[3] by new discoveries about the phenomenon of cult places,[4] and by stray finds from the settlements.[5] Awaiting publication are the La Tène and Early Roman cemetery at Most na Soči and a comprehensive study of the sanctuary at Gradič above Kobarid.[6]

This paper describes the silver finds mostly dated to the Late La Tène period. The collection of the silver items mirrors well the rise of the Idrija group and the concentration of knowledge of the then inhabitants of the Soča region. The silver finds attest to the skills of the master craftsmen and point to the use of coinage and pre-Roman writing, allowing also the possibility that certain sites were marked or organized according to astronomical events.

THE SOČA REGION DURING THE LATE IRON AGE

According to Mitja Guštin, the archaeological data collected, particularly of the relevant grave groups, reveal significant changes, as the Early Iron Age turns into the Late Iron Age. The decline of the Early Iron Age Sveta Lucija group towards the end of the 4th century BC seems to have been related to the decrease in population, although the wide distribution of sites would suggest a steady continuation of the settlement.[7] The final phase of the Early Iron Age in the Soča region (Sv. Lucija phase IIc), which corresponds to the LT B phase according to the Central European chronology, is marked by sporadic cremation graves. They contain the latest variants of the Certosa brooches, weapons combining a spear and a shaft-hole axe, and brooches of the Early La Tène scheme.[8]

The recent Kobarid find of an unusual burial of at least seven horse skeletons together with predominantly Early La Tène metal finds is significant.[9] Upon burial, the horses and the items were placed onto a flat surface and were partly overlapping. The excavations revealed a layer of compacted pebbles with larger stones on top, which originally covered the burial. Among the finds were iron swords in partly preserved scabbards, fragments of iron scabbards, iron spearheads, parts of shields, parts of iron belt chains, bronze harness strap-distributors, iron strap fittings, iron rings and iron bits; one of them was placed into the muzzle of a horse's skull. Beside the weapons – predominantly typical of LT B2 – the burial also contained a bronze brooch of the Münsingen type and a hollow bronze bracelet with a figural and geometric decoration. The find seems to reflect a unique event, probably a votive act from the late 4th/early 3rd centuries BC.[10] Although the assortment of the objects is different, the predominantly military nature of the find and dating nevertheless make the

[1] Gabrovec 1966, 187–188. – Guštin 1977, 68–69. – Guštin 1991. – Božič 1999a, 203.

[2] Guštin 1991.

[3] Mlinar 2002. – Gaspari, Mlinar 2005. – Mlinar 2020.

[4] Donat, Righi, Vitri 2007. – Gaspari 2007, 151–153. – Božič 2011. – Mlinar 2011, 22–23.

[5] E.g. Božič 1999b. – Mlinar, Gerbec, Laharnar 2014.

[6] Kos 1978. – Osmuk 1987. – Osmuk 1998. – Guštin 1991, 24–25.

[7] Guštin 1991, 75.

[8] Teržan, Trampuž 1975, 437. – Guštin 1991, 31.

[9] Mlinar, Gerbec 2011.

[10] Mlinar, Gerbec 2011, 51–54.

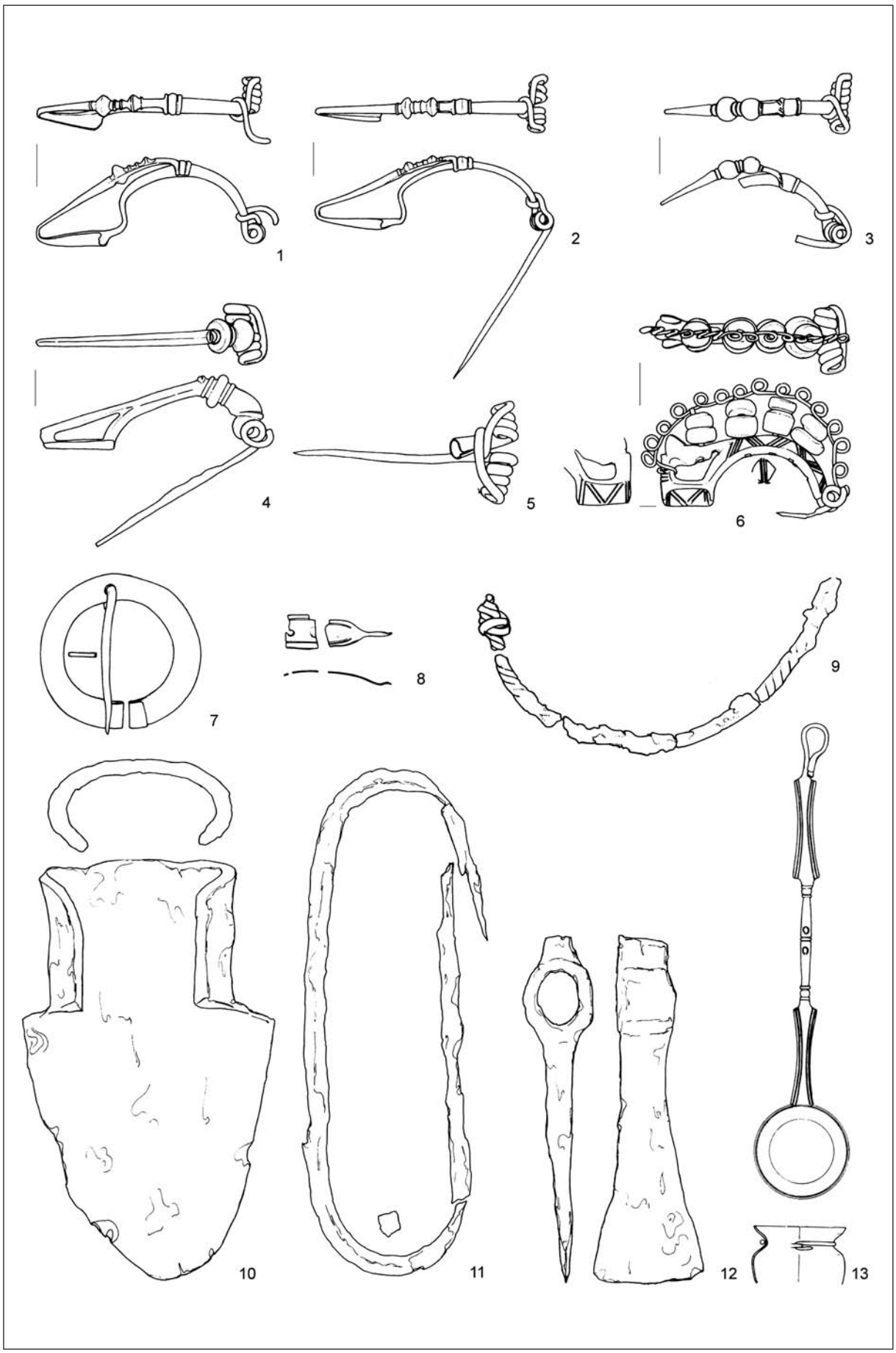

Fig. 1. Selection of finds from LT D1 grave at Idrija pri Bači (after Guštin 1991), 10 scale 1:3, rest scale 1:2.

situation comparable to the famous discovery of the weapons from Förk in Carinthia.[11] The find from Kobarid has provided important data for the research into the beginnings of the Late Iron Age in the region, and has placed the Soča region more convincingly among the southeastern Alpine territories (e.g. Carnia, Carinthia, Dolenjska) that, at least in terms of their material culture, were subject to Latenisation. At the moment, the archaeological evidence do not support colonisation by new inhabitants, for example Celtic peoples and families.

Very few data exist for the Middle La Tène period. Guštin included some of the graves from Idrija pri Bači into his phase III (3rd and 2nd centuries BC), defined mainly on the basis of certain types of brooches;[12] however, a later analysis of small finds seems to have undermined this dating. Dragan Božič has compellingly shown that the leading local brooch of the Middle La Tène scheme, i.e. the brooch of the Idrija pri Bači type (the Idrija variant of the Kastav type according to Guštin), belongs to the Late La Tène phase LT D1 (Fig. 1/1–3).[13] What this ultimately means is that there is not a single reliable grave group from the Middle La Tène period in the region. Only occasional small finds from the settlements and cult places are dated – and only by typological parallels – to the Middle La Tène period, which lasted a century and a half.[14]

The majority of grave groups and stray finds from the settlements and cult places are dated to the Late La Tène phases LT D1 and LT D2. During this time, all the main characteristics of the Idrija group become prominent: the items of local attire, the placing of agricultural tools and other implements, as well as weapons into graves.[15] Grave goods often include metal, mainly bronze vessels of Italic origin.[16] Certain graves even contained very old bronze vessels from the Early Iron Age.[17]

SILVER FINDS

Silver items stand out among the Late La Tène finds. Beside silver coins, the material contains silver votive plaques, twisted three-knobbed torcs, brooches and a ring.

Votive plaques

Two silver votive plaques were discovered at Šentviška planota plateau in the hinterland of Most na Soči. The first comes from the site of Vrh gradu near Pečine (Fig. 2),[18] where treasure hunters with metal detectors discovered many finds from the Bronze, Iron and Roman Ages. The finds suggest that the location of an Iron Age and Roman small settlement[19] also included a cult place.[20] A rectangular silver votive plaque was decorated with hammered out dots around the edges, and with a circle and a larger dot at its centre. The field between the central decoration and the edge contains an embossed inscription in Venetic script, while the little hole between the circle and the central dot, according to the finder, was accidentally made by a pick during the excavation. In shape and decoration, the plaque is comparable to certain bronze examples from sanctuaries and cult places in the Southeastern Alps.[21]

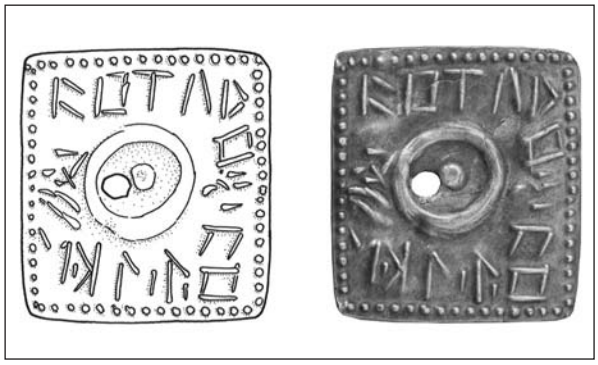

Fig. 2. Silver votive plaque from Vrh gradu near Pečine (by permission of the Tolmin Museum), scale 1:1.

Among the votive plaques from Gurina in the Upper Gail Valley,[22] most similar to the plaque from Pečine in terms of form and decoration if not size and material is a plaque with an inscription and a central motif of circularly positioned smaller hammered-out dots and one larger dot (Fig. 3/2).[23] Also related are a similarly decorated bronze plaque without an inscription from the sanctuary of Gradič above Kobarid (Fig. 3/1)[24] and a bronze example bearing a Venetic inscription from the Carnian hilltop settlement and cult place Colle Mazéit near Verzegnis (Fig. 3/4).[25]

A few kilometres from the site of Vrh gradu lies Berlotov rob, a rocky elevation transformed by karst phenomena into an unusually furrowed and jagged natural backdrop. Despite being almost impassable, the terrain contains man-made terraces with possible remains of buildings. The northern side of the site is enclosed by a semi-circle of assembled stones, and

[11] Schaaff 1990.

[12] Guštin 1991, 31–33.

[13] Božič 2011, 254–255.

[14] E.g. Božič 2011, 251–253.

[15] Guštin 1991. – Božič 1999, 203.

[16] Guštin 1991, 66–73.

[17] Božič 2009, 77–84. – Turk et al. 2009, 48–57.

[18] Mlinar, Crevatin 2012. – Laharnar, Mlinar 2014, 10–12. – Repanšek 2020.

[19] Božič 1999, 75 and Figs. 5–6.

[20] Božič 2011, 264–265. – Laharnar, Mlinar 2014, 24–25.

[21] Božič 2011, 257–258.

[22] Jablonka 2001, 170–171, 179 and Pls. 124/1, 126/1–5.

[23] Jablonka 2001, 170 and Pl. 124/1. – Božič 2011, 258.

[24] Božič 2011, 257 and Fig. 6.17/1.

[25] Vannacci Lunazzi 2001, 152–153 and Fig. 5/1. – Božič 2011, 258 and Fig. 6.17/4.

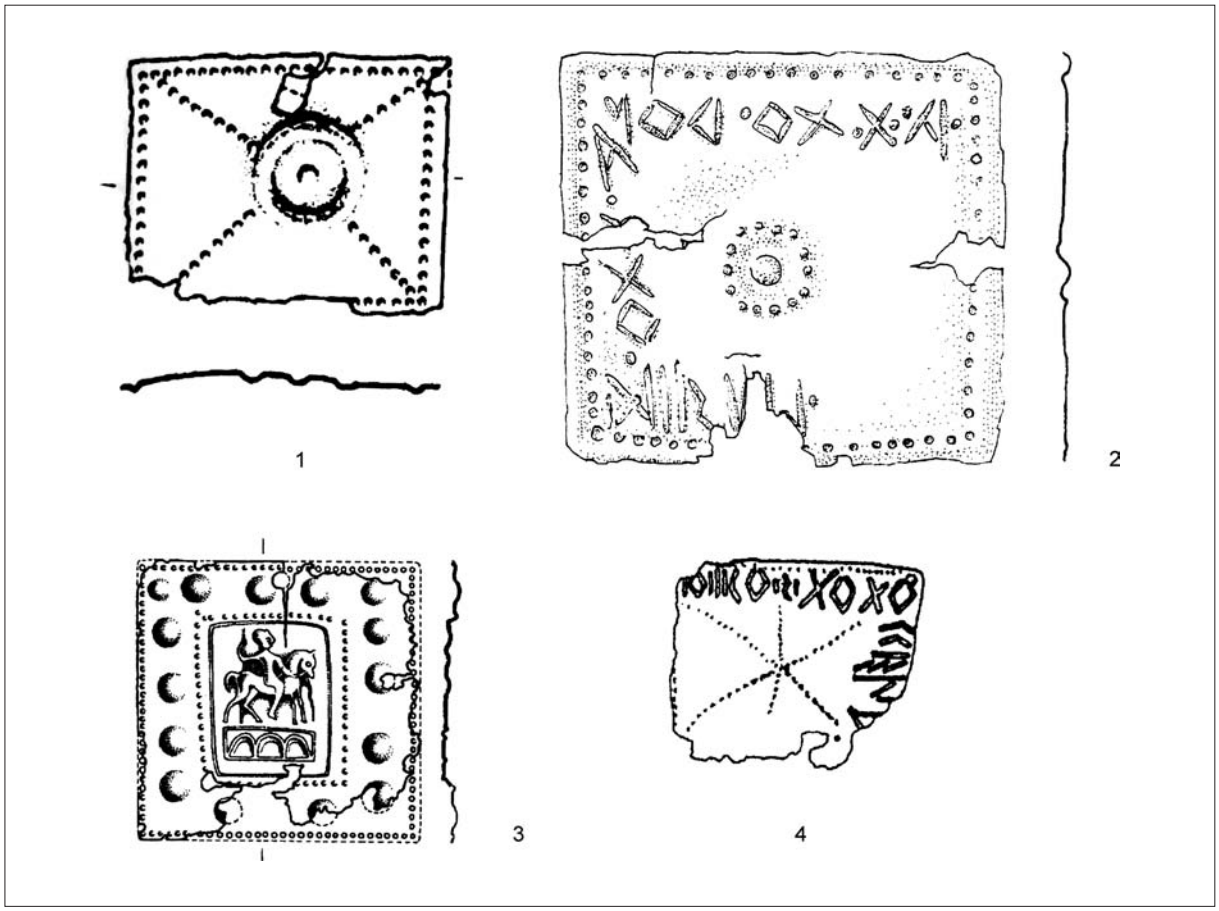

Fig. 3. Votive plaques. – 1. and 3. Gradič above Kobarid. – 2. Gurina above Dellach. – 4. Colle Mazéit near Verzegnis (after Božič 2011, Fig. 6/17), not to scale.

a narrow and steep path leads through them towards the top. Only archaeological excavations would determine whether these are the remains of a stonework rampart or perhaps a cult stone mound, similar to the ones researched at certain Alpine sites.[26] Berlotov rob, too, is a site of many archaeological finds, excavated by treasure hunters using metal detectors; the finds suggest the site was inhabited from the second half of the 1st millennium BC to the beginning of the Roman Age. The unusual topographical features of the site, a large number of diverse well-preserved metal finds and some exceptional items would suggest that this was not a settlement, but very likely an Iron Age cult place.[27]

One of the finds was a round plaque made from silver sheet (Fig. 4). The plaque is decorated by hammered-out dots, a boss and two crescents. The master craftsman imaginatively arranged the decoration into a clear iconographic narrative. The boss, fashioned in the middle of the plaque, is surrounded by dots, which are also arranged along the edge and additionally form four inner branches. The four branches of dots divide the field of the plaque into four equal sections. Two of them contain a hammered-out crescent each, while the other two have a hole. A look through a microscope revealed that the holes were made subsequently over the original crescents. This would suggest that the plaque was fastened or hammered at a later stage.

We could not find any parallels to the plaque from Berlotov rob. Decorating of round plates, pendants and phaleras by hammering out dots and bosses in similar patterns was rather common among Eastern-Alpine and Northern-Adriatic Iron Age communities, however, the objects were made from bronze sheet. We find them in the neighbourhood (Fig. 5/1–3, 4, 6),[28] as well as in e.g. Veneto,[29] Lombardy,[30] Tyrol (Fig. 5/5)[31] and Ticino.[32]

Apart from the fact that the plaque from Berlotov rob is silver, the motif of the crescents itself is also extremely rare. Among the small finds from the late prehistoric sites in the Central European territory a similar motif has been found on a button (Fig. 6/7) from the Monte Casteggione site near Colognola ai

[26] E.g. Gleirscher 2002, 99 and Pl. 151/3–4.

[27] Božič 2011, 264. – Laharnar, Mlinar 2014, 12–15.

[28] E.g. Gabrovec et al. 2006, 172 and Pl. 145/16. – Guštin 1991, 12, 142 and Pl. 40/19–21. – Ruaro Loseri 1983, 150 and Fig. 26A.

[29] Carancini 1975, 61 and Pl. 10/24–25.

[30] Rapi 2009, 65 and Pl. 31/230.

[31] Sölder 2007, 213.

[32] Schindler 1998, 112, 427 and Pl. 37/766–767.

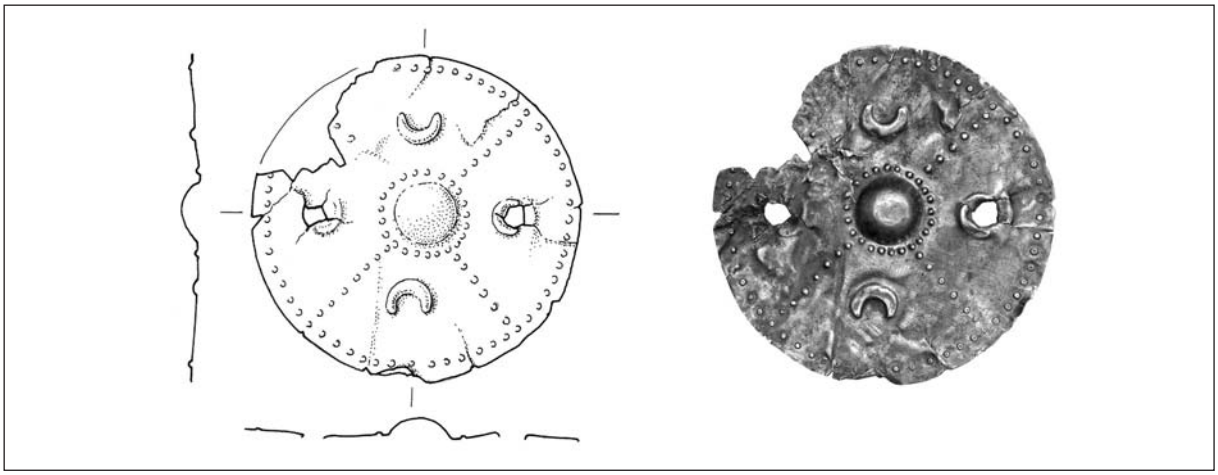

Fig. 4. Berlotov rob, silver votive plaque (National Museum of Slovenia), scale 1:1.

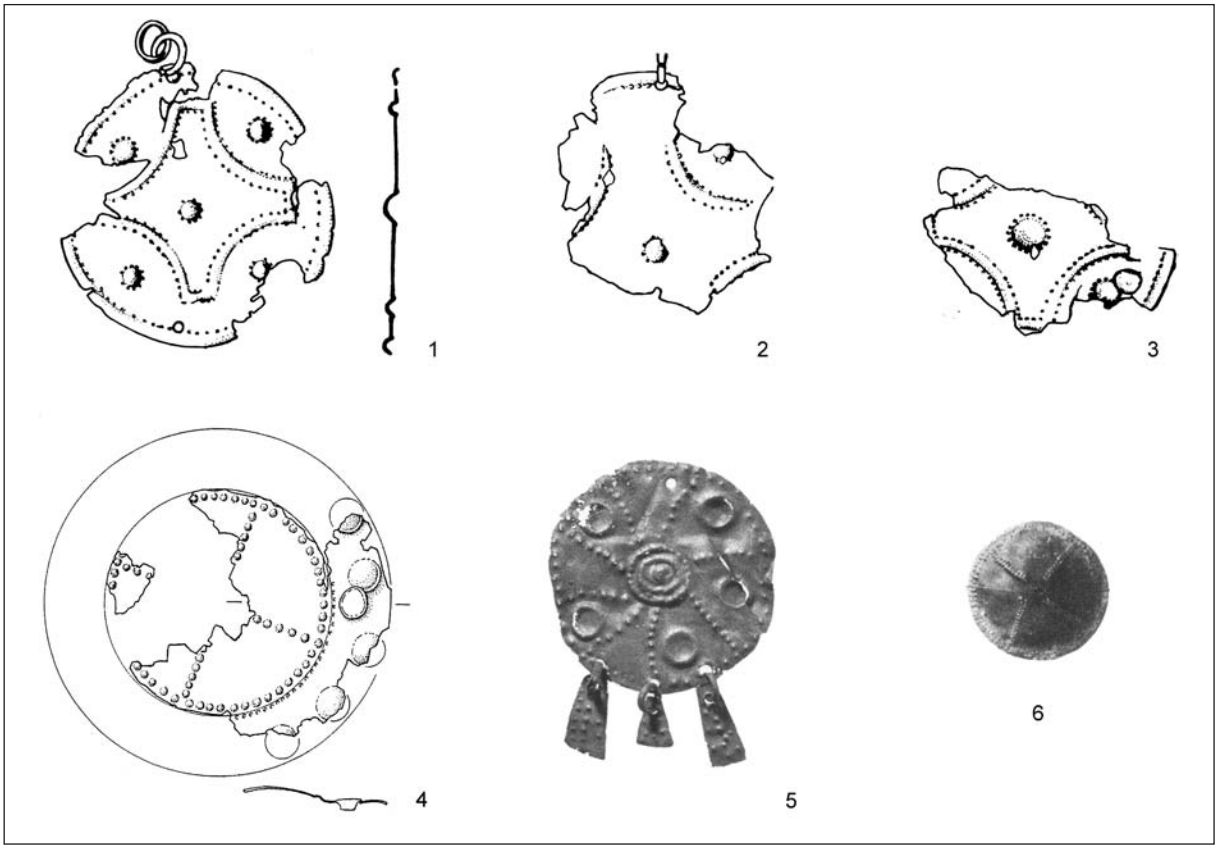

Fig. 5. Decorated round plates, pendants and phaleras. – 1–3. Bodrež (after Guštin 1991, Pl. 40/19–21). – 4. Stična (after Gabrovec et al. 2006, Pl. 145/16). – 5. Innsbruck-Wilten (after Sölder 2007, 213). – 6. Škocjan (after Ruaro Loseri 1983, Fig. 26A), not to scale.

Colli in Veneto. The Monte Casteggione settlement was inhabited from the end of the Bronze Age to at least the Late La Tène, but the button comes from an assembly of stray Iron Age finds discovered in the 19th century, which corresponds very well with the time-span of the finds from Berlotov rob. Among the finds are Certosa brooches, a brooch of the Jezerine type and a fragment of a silver twisted bracelet with knobs (Fig. 6).[33]

The layout of the decoration on the plaque from Berlotov rob, which divides the field into four equal parts with the central boss and four crescents, leads to the assumption that the maker was portraying the lunar cycle. The central boss could represent the Earth, and the crescents the most visible changes in the movement of the Moon as seen from the Earth, that is, the Moon phases. Even the earliest peoples realized that the so-called synodic month, i.e. the time from one Moon phase until the return of the same phase,

[33] Salzani 1983, 45–50.

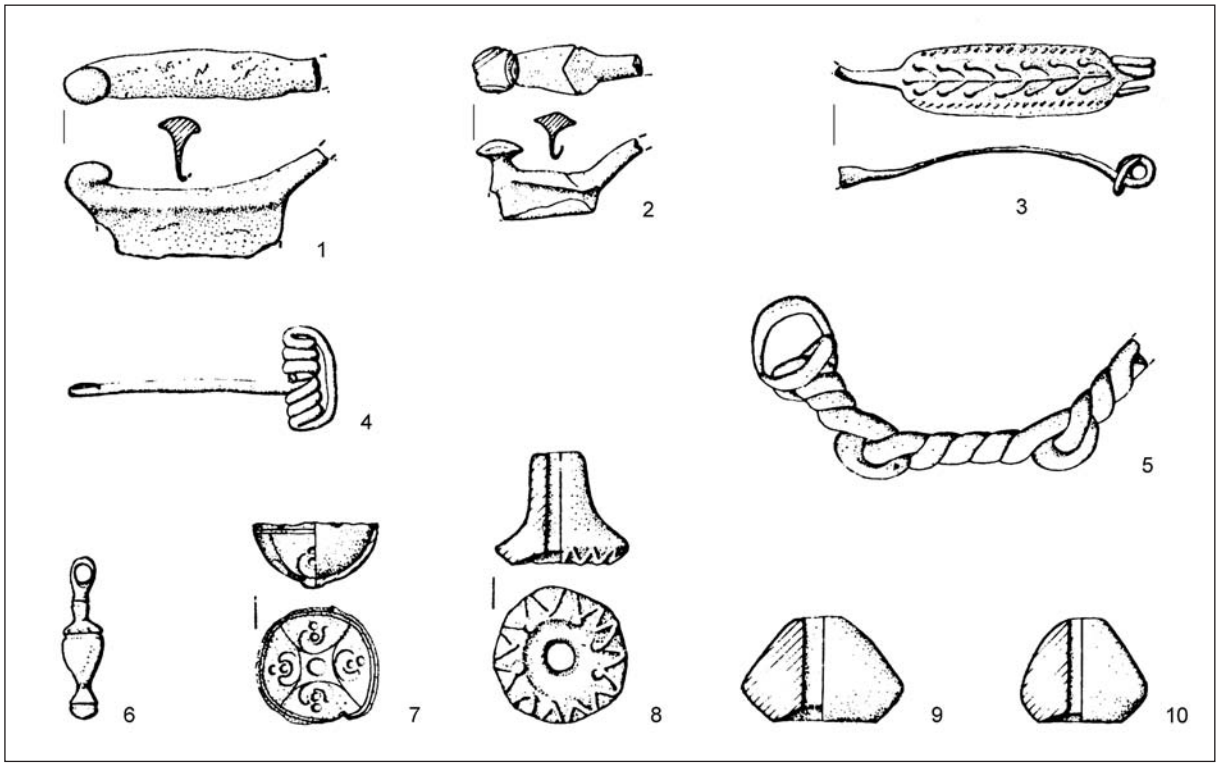

Fig. 6. Finds from Monte Casteggione near Colognola ai Colli (after Salzani 1983), scale 1:2.

roughly corresponds to the menstrual cycle, and used the observations of the changing Moon phases to measure time. In the symbolism of many cultures, the most significant role has been assigned to the first and the last crescent moon, which, during the year, most visibly change their position against the horizon.[34]

Neither the two silver nor the bronze votive plaques from the Soča region belong to any dated context, and it is therefore hard to place them chronologically. They are certainly closely related through similar decoration and the arrangement of the inscriptions. A good pointer as to the possible date is the observation by Nada Osmuk that the portrayal of a horseman and a rectangle with a triple arch on the bronze votive plaque from Gradič at Kobarid (Fig. 3/3) imitates the motif on the Roman republican denarius from 114–113 BCE.[35] Also from Gradič is a fragment of a votive plaque bearing a Venetic inscription and decorative dots, which, judging from the stratigraphic data, probably comes from the last decades BC.[36]

An additional argument for dating the silver plaques between the mid-2nd century and the last decades of the 1st century BC possibly comes from the two analyses of the elementary composition of the plaques from Vrh gradu near Pečine and Berlotov rob. The first one was analysed with the LA-ICP-MS method[37] and the second one with the EDS XRF method;[38] in both cases, the results displayed very pure silver. In the two samples from the Pečine plaque, the content of silver was as high as 99.1 and 99.3 %. So far, the archaeological record shows no indication of any mining or extracting of silver in the area during the Iron Age. No such data exist for later periods either. The question arises as to how the La Tène craftsmen from the Soča region acquired such high-quality silver.

A similarly high content of silver was confirmed in a selection of silver La Tène jewellery from certain central European sites. Birgit Schorer believes that the raw materials for the objects were acquired by recycling silver Greek coins.[39] The hypothesis cannot be applied to the Soča region and the wider south-eastern Alpine region, where Greek coins were not in circulation. Celtic or Roman republican silver coins could possibly be recycled for the purpose. It is worth mentioning that metallurgic research has shown that with an appropriate supply of air (oxygen) the quality of silver can be significantly increased even when melting silver objects of lesser quality.[40]

In the Soča region, numismatic research shows that the earliest Celtic and Roman silver coins were in

[34] Šprajc 1991, 26–27. – Mees 2007.

[35] Osmuk 1998, 17. – Božič 2011, 258.

[36] Turk et al. 2009, 60.

[37] Mlinar, Crevatin 2012, 289–290.

[38] The analysis is unpublished (archive of the Archaeological Department of the National Museum of Slovenia).

[39] Schorer 2009.

[40] Hodges 1964, 92–93. – Laharnar, Šmit, Šemrov 2017

circulation as early as the mid-2nd century BC,[41] while the minting of Celtic coins came to an end around 26/25 or 16/15 BC. Together with Roman money, Celtic coins were in circulation for at least several decades after the Roman conquest.[42]

Twisted torcs

Also from the Berlotov rob site comes a splendid silver torc with three knots (Fig. 7). During the Late La Tène,[43] such torcs (group III, type Idrija according to Guštin) were common from Veneto and Friuli across western Slovenia to Istria.[44] The torcs are a late echo of the fashion of twisted torcs and bracelets with or without knots, which were part of the Middle La Tène attire among certain Celtic peoples in central Europe.[45]

Typically, these torcs were mostly made of three bronze wires. Very few were made of silver, and all that have been discovered so far come from the Soča region. Two were probably discovered in the area of the Idrija pri Bači cemetery, but are now lost;[46] a fragment of the fourth was found in grave 12 at Reka pri Cerknem (Fig. 8/4).[47]

Fig. 7. Berlotov rob, silver three-knobbed torc (National Museum of Slovenia).

Brooches

Also among the collection of silver finds from the Idrija group are silver brooches of the Middle La Tène scheme. Two of them have been published; the third is part of a private collection and documented in the Archive of the Archaeological Department of the National Museum of Slovenia. One silver brooch, together with the above-mentioned fragment of the silver torc, a bronze situla with an iron handle, a pottery vessel and six brooches, were found in a cremation grave 12 at Reka pri Cerknem.[48] Three brooches from grave 12 (Fig. 8/1–3), including the silver one (Fig. 8/3), belong to the Slovenian Type of Middle La Tène scheme fibulae with three knobs on the bow and a disc on the bent foot.[49] According to Božič, they are contemporary to the brooches of the Idrija pri Bači type: they have certain typological features in common and both types appear in graves 3, 13 and 24 at Idrija pri Bači. They were, therefore, made and used during the Late La Tène phase LT D1.[50]

Similar is true of the silver brooch from Bodrež (Fig. 9).[51] Unlike the brooches of the Idrija pri Bači type, it does not have two knobs of different sizes on the bent foot, but rather a larger central knob and two smaller side knobs with transversal ribs along the edges. However, the chord, wrapped around the bow from the outside, the long clasp with two distinct transversal ribs along the edges, the bow of circular section and the wire spring of circular section bring its design closest to the brooches of Idrija pri Bači type. The foot of the Bodrež brooch, similarly to the foot of the silver brooch from Reka pri Cerknem, is decorated with slanting incisions.

The earrings and the silver ring from grave 14, Most na Soči-Repelc

A Late La Tène grave containing iron tools and jewellery was researched at the Repelc site, which is the lowest terrace of the Iron Age cemetery at Most na Soči. Other than an iron hoe, a billhook, a sickle, a bronze brooch and fragments of a twisted torc and a twisted bracelet, it also contained a pair of bronze earrings from a narrow metal sheet and one ring from bronze and one from silver wire.[52] The earrings of the so-called Repelc type are decorated with hammered-out dots, two incised wavy lines and small silver plates; they represent part of the Late La Tène local attire.[53]

Coins

The "Silver horizon" in the Idrija group is also marked by the use of silver Celtic and Roman coinage. The numismatic research of coin hoards from Enemonzo, Sevegliano, Kobarid and the river Ljubljanica has shown that in the area of Friuli and western Slovenia large and small Celtic silver coins were in circulation together with Roman republican coins as early as the

[41] Miškec 2003. – Kos, Žbona Trkman 2009.

[42] Kos 2002.

[43] Righi 1982, 18. – Božič 2007, 838. – Guštin 2009, 481.

[44] Righi 1982, 15–16. – Guštin 1991, 50. – Guštin 2009, 478.

[45] Guštin 2009, 484.

[46] Božič 2007, 833–837.

[47] Guštin 1991, 26 and Pl. 34/8.

[48] Guštin 1991, 26 and Pl. 35/3.

[49] Righi 1968, 93 and Fig. 23. – Guštin 1991, 37–38. – Adam 1996, 190–191 and Fig. 26/d. – Cunja, Mlinar 2010, 112.

[50] Božič 2011, 256–257.

[51] Guštin 1991, 12 and Pl. 40/10.

[52] Mlinar 2002, 26, 52 and Fig. 19. – Mlinar 2020, 44, Pl. 20-21/A.

[53] Božič 2007, 837–839.

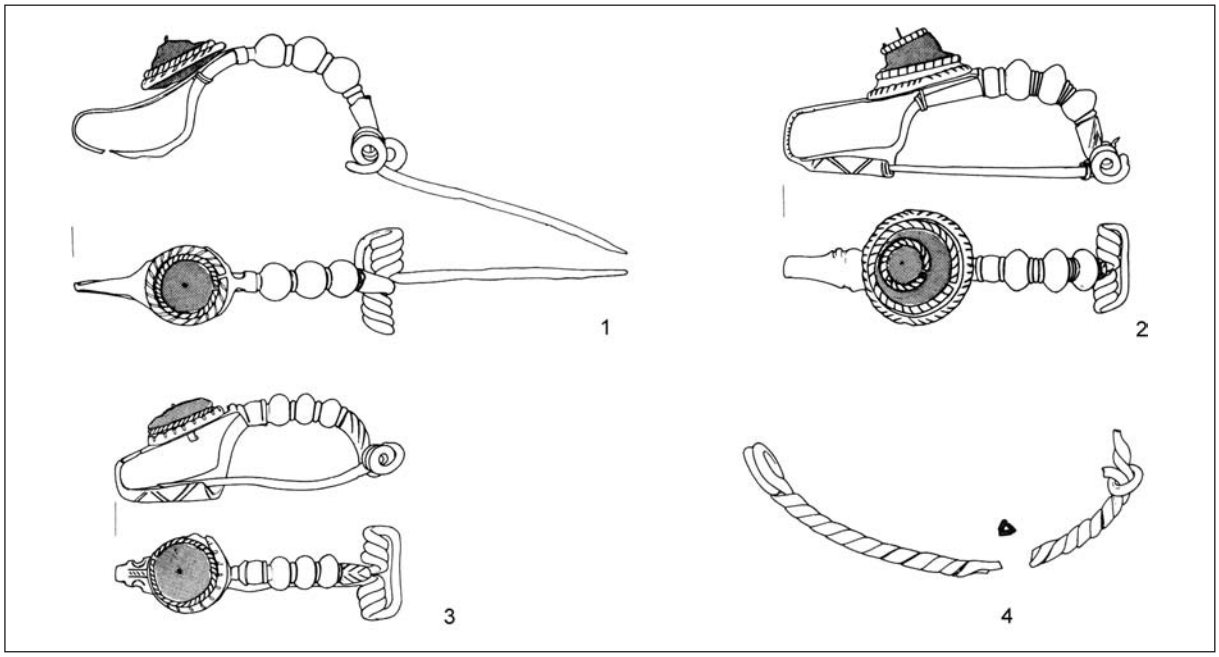

Fig. 8. Brooches and torc from grave 12, Reka pri Cerknem (after Guštin 1991, Pl. 35), scale 1:2.

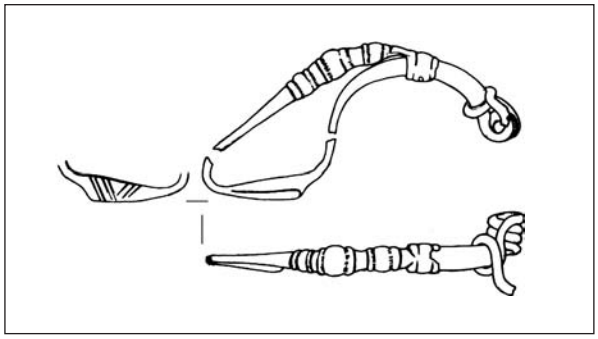

Fig. 9. Silver brooch from Bodrež (after Guštin 1991, Pl. 40/10), scale 1:2.

Fig. 10. Large silver Celtic coin of the Norican group from Gradič above Kobarid (after Miškec 2007, 275).

second half of the 2nd century BC.[54] The majority of stray finds of Celtic silver coins from the Soča region belongs to the so-called Norican group, which was typical of the territory of present-day northwestern Slovenia, northeastern Italy and southern Austria. Among them are tetradrachms with the inscriptions COPO and TINCO (Fig. 10) and small Norican silver coins of various types.[55] Judging from the Celtic coin finds it would seem that the Soča region was more closely connected to the Noricans than to the Mokronog group (Taurisci) in central Slovenia.[56]

CONCLUSION

The collection of Late Iron Age silver finds from the Soča region reflects the rise of the Idrija group in the Late La Tène period. The local variants of the silver brooches of the Middle La Tène scheme, the silver twisted torcs and the Repelc-type earrings with silver decorative plates demonstrate the craftsmanship of the local craftsmen.

Meaningful messages can be derived from the unique finds of silver votive plaques, which manifest the use of diverse skills. The plaque from Vrh gradu near Pečine adds to the list of pre-Roman inscriptions in the Soča region written in a local variant of the Venetic script, which started appearing from at least the 4th century BC.[57]

The discovery of the Early La Tène finds next to the horse skeletons in Kobarid opens up questions about Celtic influences or their possible colonisation of the Soča region. Based on scarce and often contradicting antique and epigraphic sources, two opinions have formed: that the Romans identified the

[54] Kos, Žbona Trkman 2009, 276.

[55] E.g. Kos 2013, 353–366. – Miškec 2007, 275.

[56] Miškec 2007, 276.

[57] Istenič 1985, 331. – Eichner, Nedoma 2009.

inhabitants of the Soča region as either Celtic Carni[58] or, less likely, Ambisonti.[59] Linking material culture to a particular ethnic group is very challenging and questionable, however, in this context the interpretation of the plaque from Berlotov rob could be meaningful. If we follow the explanation that the plaque depicts Moon phases, we come close to the classical authors' descriptions of certain notions that the Celts held about astronomy. Julius Caesar, for example, writes that Gauls measure time by nights. They start birthdays and beginnings of months and years with the night, followed by the day.[60] Pliny states that druids start a month and a year with the sixth moon (*sexta luna*),[61] while Strabo reports on the great significance the Moon held for the Celts from the Iberian peninsula and their northern neighbours.[62] Maybe, as in the Celtic world, the Moon played an important part for the Late Iron Age inhabitants of the Soča region in their understanding of time or even organisation of space. An interesting indication for the latter would be the site of Tonovcov grad near Kobarid, where the orientation of two Late Antiquity churches towards the east loosely corresponds to the rising point of the Moon at its major southern standstill. Alignments to major and minor standstills are frequent at European prehistoric sites, which has lead Čaval and Šprajc to a supposition that churches were built on the ruins of pre-Christian sanctuaries.[63] The analysis of small finds also points to the existence of an Iron Age cult place at Tonovcov grad.[64] To what extent knowledge of writing and astronomy was common is difficult to assess. These were likely rare and exclusive skills, reserved for the persons who had special, priestly status.

The economic and cultural rise of the Idrija group in the Late La Tène is reflected in rich graves with tools, weapons and imported Italic bronze vessels,[65] as well as in coin finds. In the region, Roman republican silver coins *victoriatii* appear together with Celtic silver coins in the mid-2nd century BC.[66] It seems that before the dramatic Roman conquest of the Soča region in the 4th decade BC, evidenced by the sites of battles between the Roman army and the locals,[67] the communities of the Soča region had also been prospering due to their control over the trade routes between northern Italy and Noricum.

[58] Božič 1999, 203.

[59] Šašel 1992, 288–297.

[60] Caesar, De Bell. Gall. 6, 18.

[61] Plinius, Nat. Hist. 16, 95.

[62] Strabo, Geogr. 3, 4, 16.

[63] Čaval, Šprajc 2011, 251.

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[64] Božič 2011, 260–262.

[65] Guštin 1991.

[66] Miškec 2003. – Kos, Žbona Trkman 2009.

[67] Istenič 2005. – Istenič 2015.

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THE LA TÈNE FEATURE RECENTLY INVESTIGATED IN THE MIDDLE MUREŞ VALLEY. A FEW THOUGHTS ABOUT THE CERAMIC MATERIAL

IOSIF VASILE FERENCZ – CRISTIAN CONSTANTIN ROMAN – IONUȚ MIHAI DEALMAR SOCOL

Abstract: During the rescue research organised at the end of 2014 in Tărtăria, Alba County, many archaeological complexes were discovered, which dated from several historical periods. One of them belongs to the La Tène period and is thought to be a dwelling. Based on stratigraphical observations we established that after its abandonment it was quickly filled. The archaeological inventory consists mostly of ceramics and osteological materials, and some of them had traces of processing. The entirety of the archaeological material discovered at the site of Tărtăria-Pietroşiţa is the subject of a long process of evaluation, but on this occasion we intend to outline the main directions used to analyse the ceramic material found in the La Tène dwelling. Our purpose is to analyse the ceramic inventory based on 5 specific attributes that are macroscopically distinguishable: category, colour, the basic elements in the paste, smoothing and firing type.

Keywords: La Tène, Transylvania, Mureş Valley, settlement, pottery

The investments in the Romanian transportation infrastructure determine the organisation of certain archaeological investigations aimed to preserve the archaeological artefacts. One such investigation was conducted in October–December of 2014, on the occasion of the modernisation of the railway on the Pan-European corridor IV (Fig. 1).

One of the sites investigated by a team from the Dacian and Roman Civilization Museum of Deva provided diverse findings from multiple ages: the Neolithic (Criş Culture), the Eneolithic (Coţofeni Culture), the Second Iron Age (La Tène and Dacians) and the Middle Ages. The site is located in a place called Pietroşiţa, on the Tărtăria village lands, Sălişte Commune, Alba County (Fig. 2).

Fig. 1. The location of the vilage Tărtăria on the middle Mureş valley (graphics: Dorel Micle).

GEOGRAPHICAL DESCRIPTION OF THE DISCOVERY [1]

Geographically, the site is on the middle flow of the Mureş River, specifically its left, approximately 850 m southeast of the southern bank, on a terrace which is on average 215 m high, about 1 km east of Tărtăria Creek (Fig. 2). There are many wellsprings in the terrace's sheer side, still active today, that represented an excellent source of drinking water. The terrace itself provides excellent visibility towards the Mureş meadow. Geographers identify between 5 and 8 levels of terraces with heights of 4–5 m, 5–10 m, 15–20 m, 35–40 m, 55–60 m, 70–80 m, 90–100 m and

Fig. 2. Demarcation area affected by the railway works in the archaeological site Tărtăria-Pietroșița (graphics: Dorel Micle).

[1] The text of the geographical description is based on a fragment of the unpublished archaeological research report written by Dorel Micle.

Fig. 3. The location of the archaeological site Tărtăria-Pietroșița and a cross-section of the Mureș valley (graphics: Dorel Micle).

110–120 m.[2] Even in prehistoric times the Mureș was intensely navigated for commercial and strategic purposes and road networks developed along its course.[3] From this perspective the Mureș Valley can be likened to a "highway", the river being the second longest (761 km) in Romania's current territory and boasting the third largest hydrographic surface (27,890 km², only the Danube and the Siret having more). In the village's sector, the valley's width varies between 8 and 10 km (Fig. 3).

The archaeological site's natural plateau is bordered to the north by marsh, while the eastern and western edges are delimited naturally by the deep valleys of some of the Mureș's tributaries, which fragment the terrace.

The railway sector for which an archaeological discharge was required was approximately 500 m long and 18 m wide in the southwestern sector, and about 5 m wide in the northeastern sector.

After archaeological investigation, the geological layers that form part of the terrace's upper layer were also observed, in reverse order of their depositing: (1) black, arable soil, (2) dark brown soil, (3) yellow soil without calcareous concretions, (4) yellow soil with calcareous concretions, (5) sand.

The archaeological literature presents some information on the toponymy and archaeological finds in the village's area.[4] The terrace and, implicitly, the village were affected by the railway building work of the second half of the 19th century. Archaeological investigation has revealed the old railway line, with multiple wooden sleepers and the mark of that era's embankment. Modernization of the railway infrastructure throughout the 20th century has likewise resulted in repeated deterioration of the site without any salvaging of the archaeological information.

Of the almost 80 investigated complexes, only one contained archaeological materials, ceramics and bones from the mid-La Tène (Fig. 4).

GENERAL DESCRIPTION OF THE COMPLEX

When the complex was delimited, it appeared as two relatively oval stains with different sizes, clearly distinct in a layer of clay, without archaeological materials outside the contour described above. For this reason we initially thought there were two complexes. While investigating in the field and later, during the analysis of the ceramics it transpired that there were two distinct types of filling within the same complex. The stepping layer corresponding to the area outside the complex was destroyed by agriculture, railway modernization and especially by the removal of the layer of vegetation prior to the site being handed over for investigation. The ceramic materials collected through mechanized levelling when the complex was being contoured allowed us to attribute it from the start to the La Tène civilization.

By axes, the complex measures 5.5 m north to south and 3.66 m east to west, with the greatest contouring

[2] Bandrabur, Codarcea 1974.

[3] Ferencz 2007, 67.

[4] Ghenescu, Sana, Ștefu 2000, 69, 82.

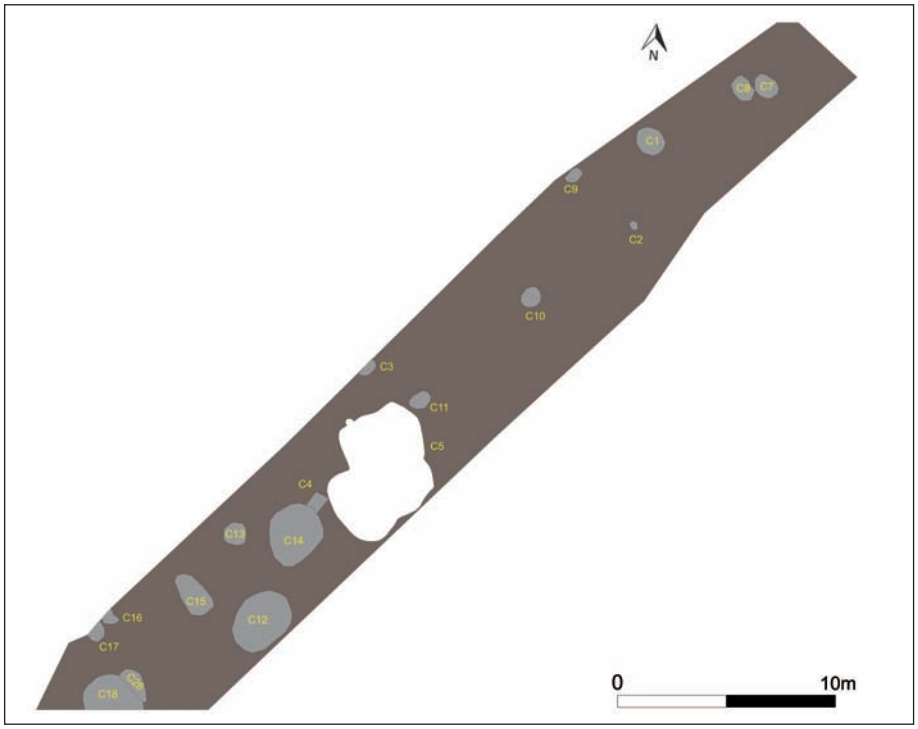

Fig. 4. The eastern area of the archaeological site Tărtăria-Pietroşiţa. On the plan the position of complex no. 5 is marked (with white) (graphics: Alexandru Hegyi).

depth of 1.49 m, though measured from the ancient stepping level it must have been a few centimetres deeper.

The whole structure previously described is a closed complex that does not conform to other stratigraphic units deposited outside it. Upon sectioning, the succession of archaeological layers within the complex was identified based on macroscopic observations (colour, composition, density). During excavation, a consistent layer of ash mixed with clay took shape, suggesting, even from the investigation's outset, a rapid filling-up of at least part of the complex. Sectioning the site on the northwest–southeast axis offered a representative image of the anthropic accumulations (Figs. 5–6). A dynamic filling-up of the complex is in evidence, marked by 3 chromatically distinct layers:

Fig. 5. The cross-section on the east-west axis of complex no. 5 (photo: Cristian Constantin Roman).

Layer 1 = brown soil, dense aspect, with carbon pigmentation and yellowish clay stains in its composition, in which a series of dense, yellow clay pieces with calcareous concretions were found.

Layer 2 = ashen soil, very fine

Layer 3 = brown soil mixed with a lot of ash, fine, with carbon pigmentation and burnt wall binding. We believe that the entire filling comes from the accumulations probably gathered around the complex during its existence. Such an interpretation may explain the high degree of ceramic fragmentation in the complex and the links between ceramic fragments from different layers of the complex.

The complex marked as C5 appears as a deepened structure, within which three distinct spaces were separated, generically named C5.1, C5.2 and C5.3. Deeply linked to the ancient arrangement, we were also able to identify two clay thresholds (on the western edge of C5.1) and two access steps (in C5.2). Likewise, the trace of a vertical pillar, 27 cm in diameter and 43 cm deep, was found in the northern part of the complex (Figs. 7–8).

As we mentioned, in the east and linked to C5.2 but also C5.1, we found the traces of two access steps, still in their original clay, about 50–60 cm, well-preserved. The height of the steps is about equal (Fig. 7). We believe that the complex was accessed through this arrangement.

C5.1 represents a well-established oval space with a long axis of about 3.3 m, within which two shelves shaped as steps, unequal in surface and height, are preserved in the original clay (Fig. 7). The lower part

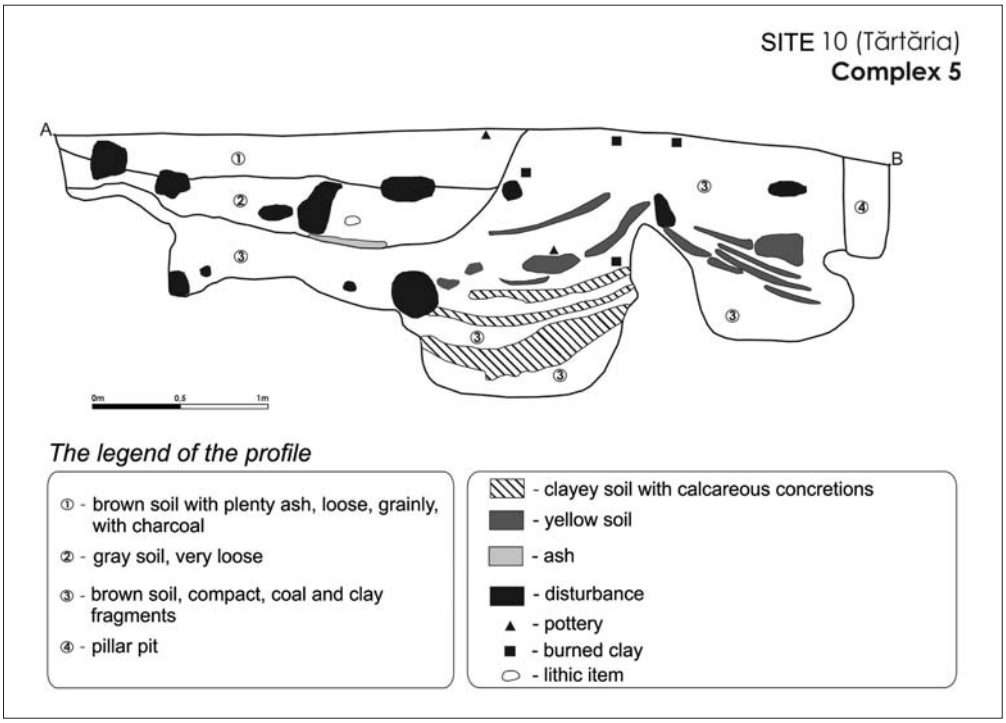

Fig. 6. The cross-section on the east-west axis of complex no. 5 (drawing profile: Cristian Constantin Roman).

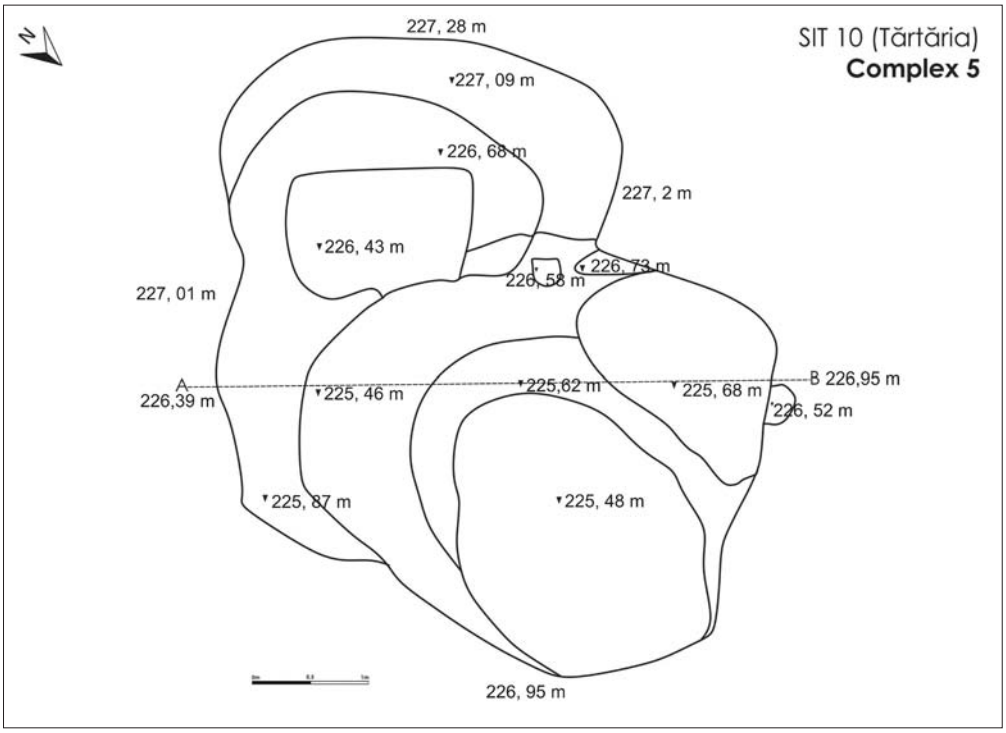

Fig. 7. The plan of complex no. 5 (drawing: Cristian Constantin Roman).

of C5.1, 1.6 x 1.1 m and up to 0.85 m deeper than the contouring level, is a relatively rectangular space with well-defined edges.

C5.2 is the deepest of the complex's three spaces, with the greatest volume. Its long axis runs approximately north to south, the general shape is an oval, about 2.5 x 2 m (Fig. 7). The walls are almost vertical and the bottom, slightly whitened. Another element identified in the eastern part, despite being found only on a small surface, was the way in which the wall was padded, with a consistent layer of well-broken-down

Fig. 8. The plan of complex no. 5 (photo: Cristian Constantin Roman).

clay, with a bit of coal in the mix, 5–7 cm thick, resulting in a relatively vertical surface.

The vertical wall also showed traces of three small pits, noticed when the wall was cleaned up. These were round, dug horizontally and their filling was the same density as that of the whole space.

C5.3: The separation between sectors C5.2 and C5.3 was effected by a thick wall, made of clay, still preserved in the soil the structure was dug in. The wall was probably doubled with wood when the structure was abandoned, as suggested by the oblique orientation of the thin clay layers in the filling (Figs. 7–8).

Generically, the components of the interior space of the complex were delimited by their volume, aspect, depth and functionality (as suggested or intuited by us), thus: C5.2 was most likely a living space, C5.1 was, we believe, a storage space and area used for daily activities, with access to the south. We believe C5.3 was a storage space.

OBJECTIVES AND METHODOLOGY

The entirety of the archaeological materials discovered on the Tărtăria-Pietroşiţa site is being put through an ample study process, but on this occasion we set out to sketch the main directions of the analysis of the ceramics discovered in the La Tène dwelling.

The study of La Tène ceramics in Transylvania has benefited from a series of contributions over time.[5] The typological analyses targeted at period pottery looked at the form (type),[6] functionality[7] or ornaments.[8] As far as we are concerned, we set out to analyse the ceramic inventory on the basis of 5 specific attributes that can be distinguished macroscopically: the general makeup, the colour, basic elements of the paste's composition, smoothing and the type of firing. Likewise, we will consider traces of secondary firing. Based on this site, we propose to extend our study throughout the middle Mureş area, and thereafter the whole of Transylvania.

Considering that we are dealing with a very recent discovery and the brief time allocated to processing the materials, the objective of this study is to present the site in its spatial and chronological bearings, and especially to sketch the general coordinates of the work method we propose for the ceramics analysis.

[5] Crişan 1966. – Crişan 1969, 100–150. – Moscalu 1983. – Németi 1988. – Popa, Simina 2004. – Ferencz 2007, 82–104.

[6] Crişan 1966. – Moscalu 1983. – Németi 1988.

[7] Ferencz 2007.

[8] Zirra 1978.

THE ARCHAEOLOGICAL MATERIAL

The site's inventory consists mostly of ceramics, but also two objects made of antler with obvious traces of deliberate shaping that will be the subject of other works. The typical Transylvanian La Tène ceramics have good analogies amongst the middle Mureș discoveries (Fig. 9). Although the complex did not provide materials with restricted chronology, most probably the whole complex dates from the middle stage, C1, of the Second Iron Age, if we take into account the dating of similar discoveries in the same area and, as will follow, analogies. Only through extended investigation could we identify other elements to further tighten the chronological fit.

Regarding typology, we related our analysis to the system proposed by Iosif Vasile Ferencz.[9] The same types of vessels were identified in La Tène contexts throughout Transylvania and the whole Carpathian Basin. Here are a few examples:

Handmade tureens with inward-turned lips are receptacles common to wide brackets of space and time.[10] Examples such as the one we illustrate in Pl. I/5 are present nearby at Lancrăm, Gligoreşti and Şeuşa.[11] They were assigned to Type C1.[12] They are also present on the Upper Mureş, within the ceramic material from the settlement at Moreşti.[13] At the same time, good analogies originate from the settlement at Sajópetri Hosszú-dűlő, specifically structures 95.4,[14] 95.5,[15] 96.2,[16] 96.14,[17] or 96.66.[18] In today's north-western Romania, receptacles of this type have been assigned to Type B3.[19]

Another type of vessel, a wheel-thrown tureen we assigned to type G2 (Fig. 9) and illustrated in Pl. 4/2, has typological correspondences at Sajópetri Hosszú-dűlő in structures 95.5,[20] 02.A.74,[21] 02.A.93,[22] and in the structure 03.B.32.[23] There are other analogies in the investigated settlements on the Mureș Valley, specifically at Gligorești, Șeușa,[24] and Morești.[25] Vessels of this type are also found in discoveries from today's western and northwestern Romania, being assigned to Type H4.[26]

Ceramic discs such as those illustrated (Pl. 2/1, 2; Pl.3/11; Pl. 4/9; Pl. 6/4, 8) are items whose functionality is hard to pinpoint. They have been interpreted as patellae[27] or lids,[28] but the archaeological literature also has other interpretations, such as cult pieces, portable hearths or trays.[29] They are frequent in settlements outside the Carpathian arch during the 4th and 3rd centuries BC.[30] They seem to appear in the First Iron Age across a wide territory and the oldest were found in today's Slovakia.[31] Sporadic examples date to the 2nd and 1st centuries BC,[32] but these have handles.[33] At Solotvino, Ukraine, they are associated with the first layer of Dacian inhabitance, dated by the investigations' authors to the 3rd century BC, though its debut may be placed at the end of the previous century.[34] They are also present in the Sajópetri Hosszú-dűlő settlement, within multiple complexes (95.1,[35] 95.4,[36] 96.23,[37] 96.66,[38] 96.70,[39] 96.73,[40] 02.B.33,[41] 03.B.42,[42] and from the 03.B.59.[43]). All the enumerated complexes date throughout the whole period this settlement was inhabited, framed by the investigation's authors to the end of the 4th century BC (c. 310 BC) to the middle of the 2nd century BC[44].

Among the findings so far in the Middle Mureș area and throughout Transylvania, the fragments we present are the first of this kind.

As far as we are concerned, we believe these objects could have served as lids, but in this case the lack of secondary burn traces is an argument that excludes their use for covering vessels on the cooking fire. Likewise, the form without a handle is another argument for the idea that they were not used to cover heated recipients. For such situations they may have used truncated cone or keeled lids.

More likely, if they were indeed used as lids, it was for provision pots or where food was stored briefly. We find no credible argument for the portable

9 Ferencz 2007, 83–98. – Ferencz 2006.

10 Ferencz 2007, 98–90.

11 Ferencz 2007, Pls. XXXII/8, XLVI/1, LXXI/4, LXVII/1 and LXXXI/4. – Popa, Simina 2008, Pl. 23/1.

12 Ferencz 2007, 89–90.

13 Berecki 2008, 53.

14 Szabó 2007, Pl. X/9.

15 Szabó 2007, Pl. XIV/3, 5.

16 Szabó 2007, Pl. XXXVIII/13.

17 Szabó 2007, Pl. XLVIII/3.

18 Szabó 2007, Pl. LV/9.

19 Németi 1988, 95.

20 Szabó 2007, Pl. XVI/5.

21 Szabó 2007, Pl. LXXX/9.

22 Szabó 2007, Pl. LXXXVI/3.

23 Szabó 2007, Pl. CXXVII/8.

24 Ferencz 2007, 96.

25 Berecki 2008, 54–55.

26 Németi 1988, 102.

27 Vasiliev et al. 2002, 51.

28 Moscalu 1983, 87. – Szabó 2007, 240.

29 Vasiliev et al. 2002, 51.

30 Vasiliev et al. 2002, 51.

31 Moscalu 1983, 89. – Vasiliev et al. 2002, 51.

32 Vasiliev et al. 2002, 51.

33 Moscalu 1983, 88.

34 Vasiliev et al. 2002, 54–55.

35 Szabó 2007, Pl. II/8.

36 Szabó 2007, Pl. IX/8, 9.

37 Szabó 2007, Pl. LI/11.

38 Szabó 2007, Pl. LV/6, 8.

39 Szabó 2007, Pl. LIX/4.

40 Szabó 2007, Pl. LX/9, 10.

41 Szabó 2007, Pl. CXXIX/11.

42 Szabó 2007, Pl. CXXXI/8.

43 Szabó 2007, Pl. CXXXIII/3.

44 Szabó 2007, 318–319.

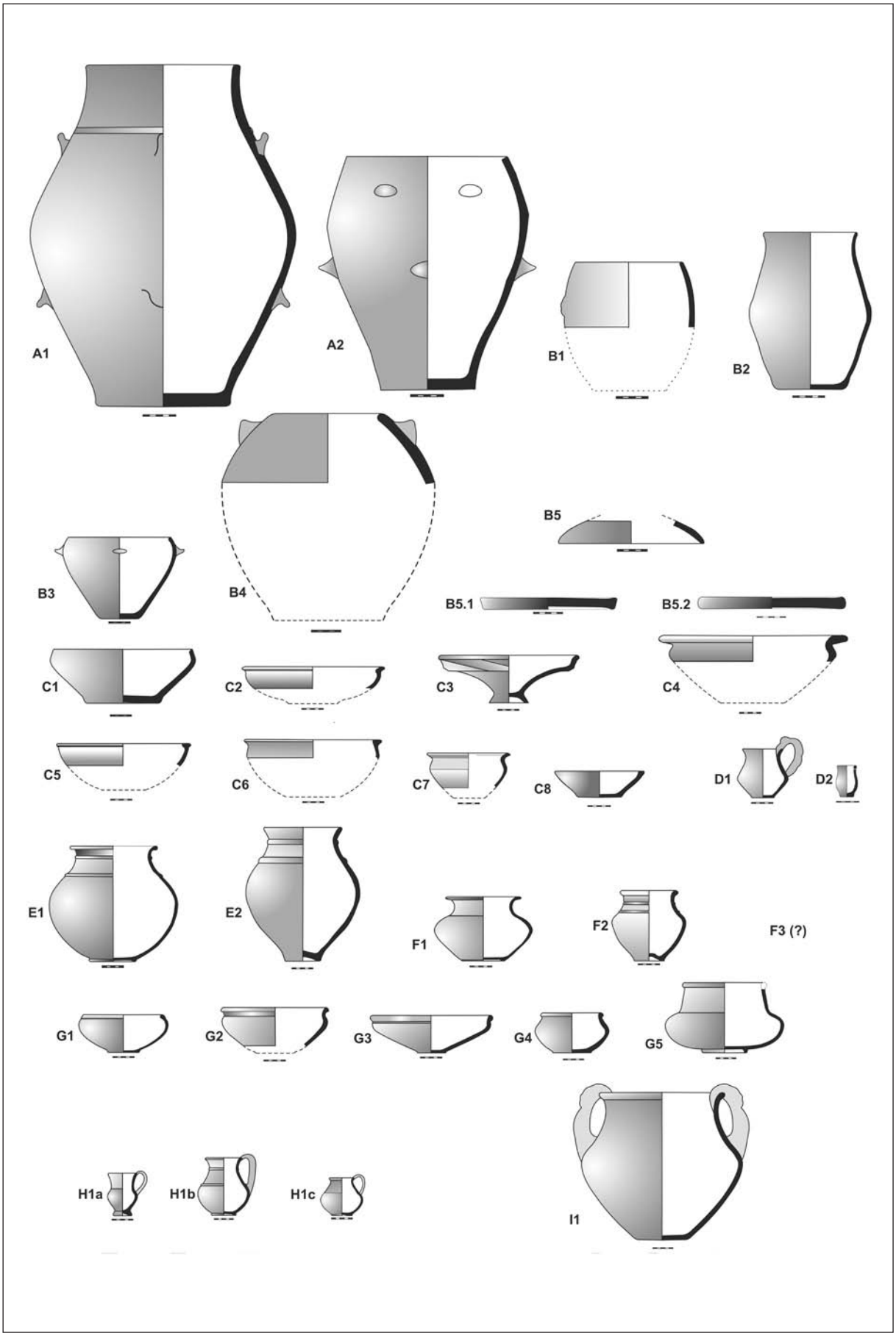

Fig. 9. The typology of the La Tène ceramic vessels discovered in the Mureş valley settlements (graphics: Cristian Constantin Roman).

hearth or cult piece interpretations. We think the tray or patella interpretations merit consideration, but we lack any information about the kinds of food that might have been served with such objects. The existence of ornamented pieces and those pierced once or several times offer little help in interpreting their function.[45] Thus we believe the interpretation of these objects as lids is the most plausible.

Two of the forms that could be graphically reconstructed with more accuracy also draw good analogies. The wheel-thrown vessel from Pl. 7/2 is similar to items from structures 96.6[46] and 03.A.136.[47] from la Sajópetri Hosszú-dűlő, while on the Middle Mureș there are analogies at Jidvei.[48] Within János Németi's typological system, this vessel can be assigned to type K8.[49]

Also worth mentioning is the handmade vessel illustrated in Pl. 4/5m, also present in structures 95.4,[50] 96.9,[51] and 96.99[52] from Sajópetri Hosszú-dűlő, but with no correspondences on the Middle Mureș, so far. We assigned it to Type C8 (Fig. 9), while in the system for today's western and northwestern Romania it fits into Type B4.[53]

The repertory of forms, the great majority of which can be graphically reconstructed, is varied and covers the general typology of ceramics for the Middle Mureș sector (Fig. 9). The most numerous ceramic fragments belong to pots with straight or slightly arced walls – type B1 (Pl. 1/1, 2, 6, 10, 14; Pl. 2/3, 6, 15, 16; Pl. 3/13; Pl. 4/1; Pl. 5/3, 15; Pl. 6/9; Pl. 7/6, 8, 9; Pl. 8/12, 15, 17) and B2 vessels (Pl. 1/3, 4; Pl. 2/4, 13; Pl. 4/4; Pl. 5/9). Regarding the wheel-thrown vessels, the most numerous examples are type E1 (Pl. 1/7, 8, 15) and F2 (Pl. 3/5, 8; Pl. 7/2, 4; Pl. 8/5, 6) – pots for storing provisions.

The other morphological types, such as tureens with inward-turned lips (Pl. 1/5, 11; Pl. 5/6–7; Pl. 8/7,9), truncated cone vessels (Pl. 5/4), truncated cone vessels with a slightly arced profile (Pl. 2/5; 4/5; Pl. 5/16), deep truncated cone tureens (Pl. 1/13; Pl. 3/3; Pl. 4/2; Pl. 5/2; 6/1, 2; Pl. 7/5), and truncated cone bowls (Pl. 3/4; Pl. 7/14) have poorer representation.

The high number of ceramic fragments from lids (Pl. 2/1, 2; Pl.3/11; Pl. 4/9; Pl. 6/4, 8) is also worth mentioning.

The ceramic receptacles' bases are either straight, slightly profiled (Pl. 2/17; Pl. 4/7, 8, 11–13; Pl. 5/5, 10, 11, 13, 14; Pl. 7/6, 7; Pl. 8/10, 11, 14), or annular (Pl. 1/9; Fig. 5/12; Pl. 6/10, 11; Pl. 7/1, 2; Pl. 8/13).

[45] Vasiliev et al. 2002, 51. – Szabó 2007, 240.

[46] Szabó 2007, Pl. XLIV/7.

[47] Szabó 2007, Pl. CVII/1.

[48] Ferencz 2007, Pl. XXXIX/1.

[49] Németi 1988, 104.

[50] Szabó 2007, Pl. X/4.

[51] Szabó 2007, Pl. XLVII/7.

[52] Szabó 2007, Pl. LV/7.

[53] Németi 1988, 95.

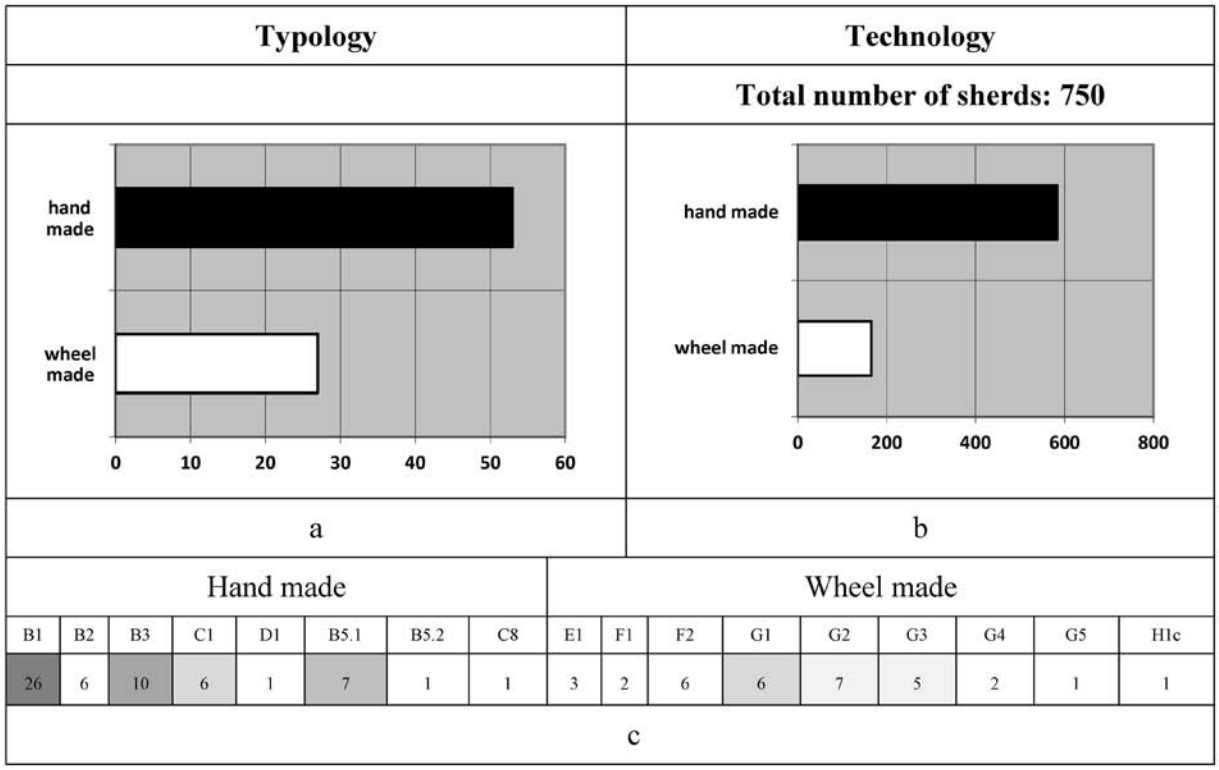

Fig. 10. Quantitative relationships between ceramic categories and the vessels morphology from the complex no. 5 (graphics: Cristian Constantin Roman).

Another distinct functional category groups oval buttons (Fig. 2/12, 14; Fig. 8/10); rectangular buttons (Pl. 7/10); elongated oval doubled buttons with horizontal girdles (Pl. 2/7; Fig. 6/5; Pl. 7/12) and horizontal girdles (Pl. 1/2; Pl. 2/8, 11; Pl. 4/10; Pl. 6/6; Pl. 7/11; Pl. 8/8). There are a few rare fragments from vessels with raised handles (Pl. 2/9; Pl. 8/1, 3). An important aspect for the technological specifications of this ceramic lot is the presence of a ceramic fragment whose exterior is covered with a slippery, graphite glaze (Pl. 3/7) and a perforation, probably for repairing vessels. Vessels with post-firing orifices were also found at Lancrăm,[54] Şeuşa[55] and Vinţu de Jos,[56] close to the Tărtăria-Petroşiţa site.

The ornaments present in this lot are few and consist of oval sockets on the bodies of vessels (Pl. 2/3; Pl. 4/6) and oblique striations (Pl. 5/1; Pl. 8/2, 4).

The ratio between the two ceramics species, based on the analysis of items that can be easily assigned to one of the two typological categories present on the Middle Mureş (as illustrated in Fig. 9) can be seen in Fig. 10/a. The data correlates with the diagram in the lower part of the table (Fig. 10/c). Regarding the ceramics categories as reflected in the typological repertoire, we notice that handmade forms predominate (63 %), of which categories B1 and B3 total 39 % of the clearly identified forms. These correspond functionally to the category of kitchen pottery, most likely used to prepare food.[57] Such vessels are also found in northwestern Romania; Janos Németi assigns them to types C2 and C5.[58] Regarding C5 vessels (B3 within our proposed system: Fig. 9), Németi noticed they are better represented at the Pişcolt-Nisipărie and Tărian sites.[59] The B1 and B3 vessels are present at Moreşti as well, where the settlement originates from the C1 La Tène phase.[60] As for the wheel-thrown vessels, we distinguish equilibrium of proportions as well as the small number of items in some categories.

Technologically, all 750 fragments in the C5 complex were examined, as can be seen. From the table in Fig. 10/b we see that the proportions between the two ceramics species remain at a level where handmade ceramics predominate (77.87 %) over wheel-thrown ones (22.13 %).

These reports reflect the gathering of ceramics after the structure was abandoned, not while it was functioning. This is the reason why our proposed analysis takes into account a time interval with the time of abandonment as the *terminus post quem*.

CONTEXTUALIZING THE CERAMICS

Case study: Analysis of ceramics categories (type and mode of manufacture) taken from what is conventionally called Space C5.2

From this first kind of analysis we conclude that out of 280 ceramic fragments found in the compartment we called C5.2 and entered in our database, 18.9 % are from wheel-thrown pieces while the majority (81.1 %) come from handmade pieces. The lowest number of sherds (12) was found in the lower part, which suggests the complex was abandoned without leaving a functioning inventory (Fig. 11).

Also, a large quantity of ceramic sherds were found within 0.14 m from the contour, but the percentages regarding the type of ceramic manufacture persist (20.27 % wheel-thrown, 79.73 % handmade). The general situation is reflected quantitatively by values found in the table below and demonstrates the transformation of this dwelling complex into a garbage dump.

Within the same space we analysed the relationships between ceramics types by depth. We note that usual ceramics vastly overtake the other two categories put together in depths of up to 0.4 m. This drops off noticeably toward the bottom of the complex, so that the numbers of fine and semi-fine pieces come close to the number of usual ones (Fig. 12).

PRELIMINARY RESULTS

Human communities from the first stages of the Second Iron Age in the Middle Mureş area dwelled on high terraces and only sometimes in the meadow, which could be flooded, utilizing the terrain's resources mainly for agriculture and raising livestock.[61] The aspect of settlements in Transylvania, as well as to the west in the limit areas, is that of clumps of dwellings in a tight area.[62] For example, at Lancrăm-Glod, not far from Tărtăria, the interval between the two identified dwellings was about 100 m.[63] At Moreşti, on the Upper Mureş, all dwellings were concentrated on a quarter hectare,[64] while at Ciumeşti, today in northwestern Romania, the dwelling complexes were about 60–120 m apart from each other.[65] Generally, the stratigraphy of Early-Mid La Tène settlements has few levels due to the dispersed dwellings.[66] In our case it is quite possible we are dealing with just such a dwelling, but within the terrain that is about to be affected by railway modernization work only one of the complexes comprising the settlement was

[54] Popa, Simina 2004, Pls. 24/5, 27/8. – Ferencz 2007, Pl. XLVII/5.

[55] Ferencz 2007, Pls. LXXXVII/4, LXXXVIII.

[56] Ferencz 2007, Pl. CIV/7–8.

[57] Ferencz 2007, 87–88.

[58] Németi 1988, 97.

[59] Németi 1988, 97.

[60] Horedt 1979, 38–39 and Figs. 15/8, 11, 13–15; 16/2.

[61] Ferencz 2007, 154. – Berecki 2008, 12.

[62] Berecki 2015.

[63] Popa, Simina 2004, 39.

[64] Berecki 2008.

[65] Zirra 1980, 69.

[66] Berecki 2008, 20.

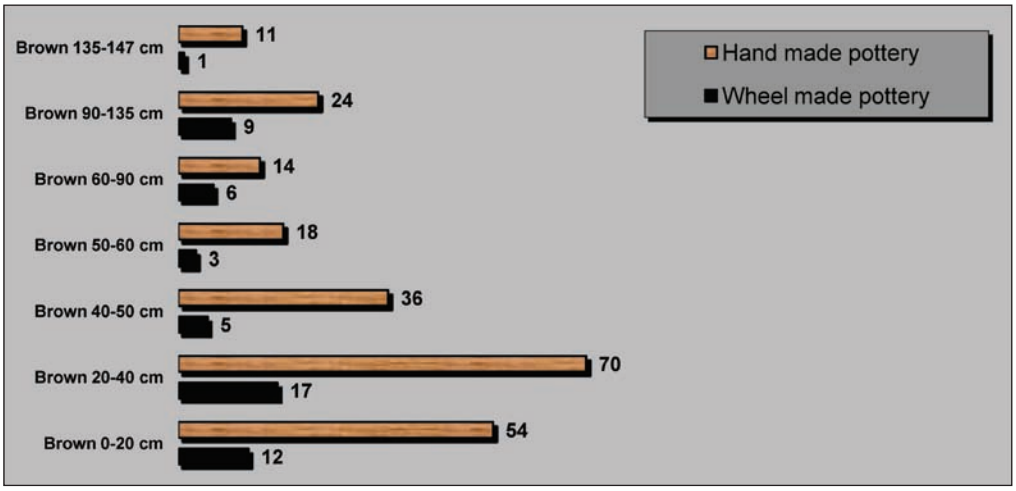

Fig. 11. The distribution of the ceramic fragments according to general technology on layers and depth (graphics: Cristian Constantin Roman).

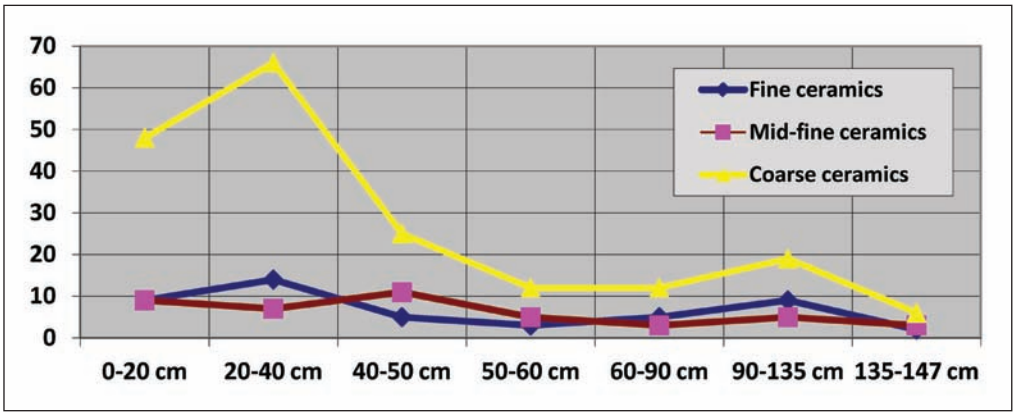

Fig. 12. The relationship between the ceramic categories related to layers and depth (graphics: Cristian Constantin Roman).

discovered. Regarding the vertical stratigraphy, the observations made inside the complex are relevant.

The archaeological reality of the moment permits us access to only a few investigated dwellings until now, most of these being only partially investigated, with scant publishing. A very recent analysis of the Transylvanian habitat in the opening stages of the Second Iron Age revealed that dug in or half-dug in dwellings are usually rectangular, rarely round and have a single room of about 7–10 square metres.[67] Generally they are only a bit deeper than the stepping level (c. 0.10–0.70 m), but there are also cases with deeper depths such as 1.50–1.70 m.[68] In the case of investigated dwellings from the same area, such as at Tărtăria, support pillars were identified[69] but in other cases no such traces were found; instead there were pieces of clay wall binding. This type of structure without support beams is common in the Carpathian Basin,[70] with the same situation in some investigated dwellings at Berveni,[71] Carei,[72] Ciumeşti[73] or Pişcolt,[74] in today's north-western Romania.

The inventory of these dwellings and of the storage pits, when these kinds of structures are found, mainly consists of pottery.[75] In the case of the settlements, approximately 2/3 of the wares are hand-made and only a third are wheel-thrown.[76] Romanian historiography has long been marked by the so-called ethno genesis of the Dacians and therefore most times handmade ceramics were considered locally made while wheel-thrown pieces were (and still are) designated Celtic. The presence of both species of ceramics, both in dwellings and the necropolis proves

[67] Berecki 2015.

[68] Berecki 2015.

[69] Vasiliev et al. 2002, 51. – Popa, Simina 2004, 52. – Ferencz 2007, 57 and Note 267.

[70] Berecki 2015.

[71] Németi 1986, 72–73.

[72] Németi, Gindele, Marta 1998, 57.

[73] Zirra 1980.

[74] Németi, Gindele, Marta 1998, 57.

[75] The pits investigated more or less on the Middle Mureş Valley could be found in Ferencz 2007, 63.

[76] Berecki 2015.

their use by the same communities, with handmade ceramics being more common within settlements.[77] An extra argument for this is the presence of both species of ceramics in the inventory of potters' kilns within the same workshops.[78]

The very high degree of fragmentation in ceramics and lack of whole or restorable vessels within dwellings is a frequent situation for mid-La Tène discoveries. This situation has been interpreted as proof of abandoned dwellings first being cleared of anything useful.[79] Proof of this is the small number of ceramic shards in the investigated dwellings at Moreşti.[80] As for the end of inhabitance at Sajópetri Hosszú-dűlő, the investigation's authors opined that the people left the settlement, concentrating, like the whole population, in *oppida*.[81]

The pit houses were usually heated by hearths[82] or stoves made of stone.[83] Such structures are documented at Şeica Mică,[84] Lancrăm,[85] Moreşti,[86] Mediaş-Teba[87] and Cipău-Sfântu Gheorghe,[88] but in many cases such installations are missing inside the dwellings, in other cases fireplaces were found outside.[89] It is possible the structures with missing hearths or other heating installations were not destined for human habitation, used only during warm seasons or warmed up in other ways.[90] Such a case was documented only a few kilometres away, at Lancrăm-Glod.[91]

Hearth fragments were present in the fillings of dwelling pits investigated at Ciumeşti,[92] but they got there only after the dwellings fell into disuse, therefore there is no proof that such installations were used to warm up the insides of dwellings. More likely, the fire installations from which these shards originate were placed outside and used for cooking. These same hearth fragments found in the dwellings investigated in Ciumeşti have been used as arguments to interpret the end of habitation as abandonment.[93]

To establish the chronology of recent discoveries from Tărtăria-Pietroşiţa based only on shards is a difficult endeavour. The stations located nearby have provided some artefacts that can be dated within a restricted period of time. These include two bronze fibulae, three fragments of glass bracelets and a bit of iron from Şeuşa[94] and the well-known pot with anthropomorphic handles from Blandiana[95] indicating La Tène C1 as the classification date for the stations in question. Out of those two stations mentioned, Şeuşa and Blandiana, the latter is situated a small distance from Tărtăria (about 1400 m). However, neither the proximity to other better chronologically classified settlements (such as the one from Şeuşa), nor the fact that the dwelling was abandoned or that the ceramic fragments have analogies in the area are sufficient arguments to propose a certain date for the filling-up of complex C5 from Tărtăria.

La Tène civilisation characterising the so-called "Celtic Horizon" is identified in the intra-Carpathian space and implicitly on the middle flow of the Mureş at the end of the 4th century BC and until the 2nd century BC.[96] Based on the materials available to us, we can state for sure that structure C5 can be classified with certainty within the chronological segment during which the Celts were present in Transylvania and also that the complex's mode of arrangement and its inventory are typical of La Tène civilisation. Also, the filling manner indicates the abandonment of the structure and recovery of useful inventory. We do not know at this stage of research whether we are dealing with an isolated structure or with one of the complexes of a settlement. Although partially destroyed, the site can still be interesting for further research.

[77] Németi 1988, 110.

[78] Berecki 2015.

[79] Zirra 1980, 70.

[80] Berecki 2008, 36 and Fig. 25.

[81] Szabó 2007.

[82] Berecki 2015.

[83] Ferencz 2007, 60–61.

[84] Berecki 2015.

[85] Popa, Simina 2004, 39. – Ferencz 2007, 60–61.

[86] Horedt 1954, 214. – Berecki 2008, 37.

[87] Blăjan, Togan 1978, 40.

[88] Horedt 1955, 661 and Pl. 4.

[89] Ferencz 2007, 60–61. – Berecki 2015.

[90] Horváth 1987, 66.

[91] Popa, Totoianu 2000, 54, 96 and Fig. 38. – Popa, Simina 2004, 38 and Fig. 7.

[92] Zirra 1980, 70.

[93] Zirra 1980, 70.

[94] Ferencz 2007, 132.

[95] Aldea, Ciugudean 1985, 37 and Figs. 1/1, 2/1. – Ferencz 2007, 97–98, 103–104 and Pls. XXIV/5, XXV. – Rustoiu, Egri 2011, 52–69 and Figs. 20, 21/1.

[96] Ferencz 2007, 152–153, 159–160.

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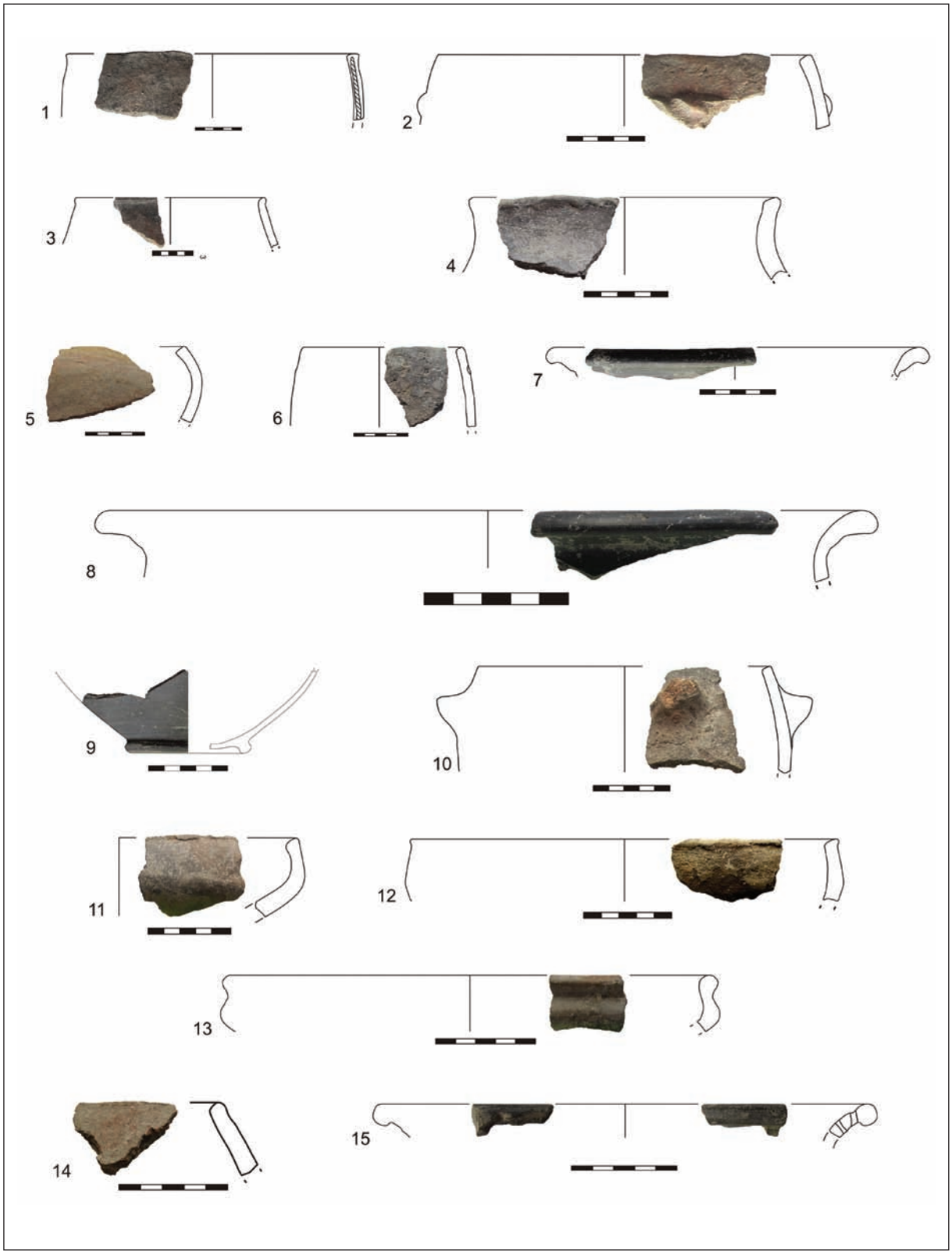
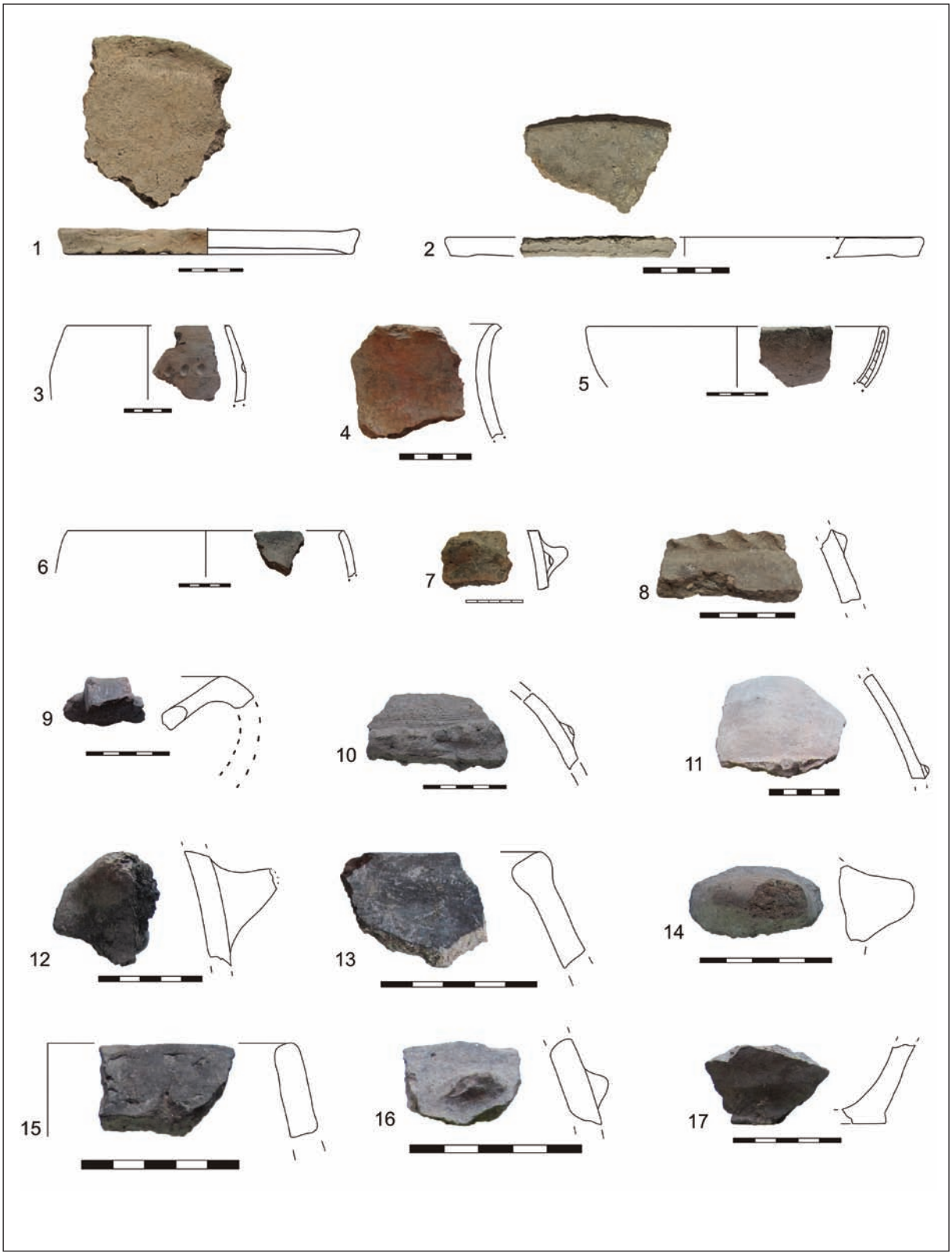
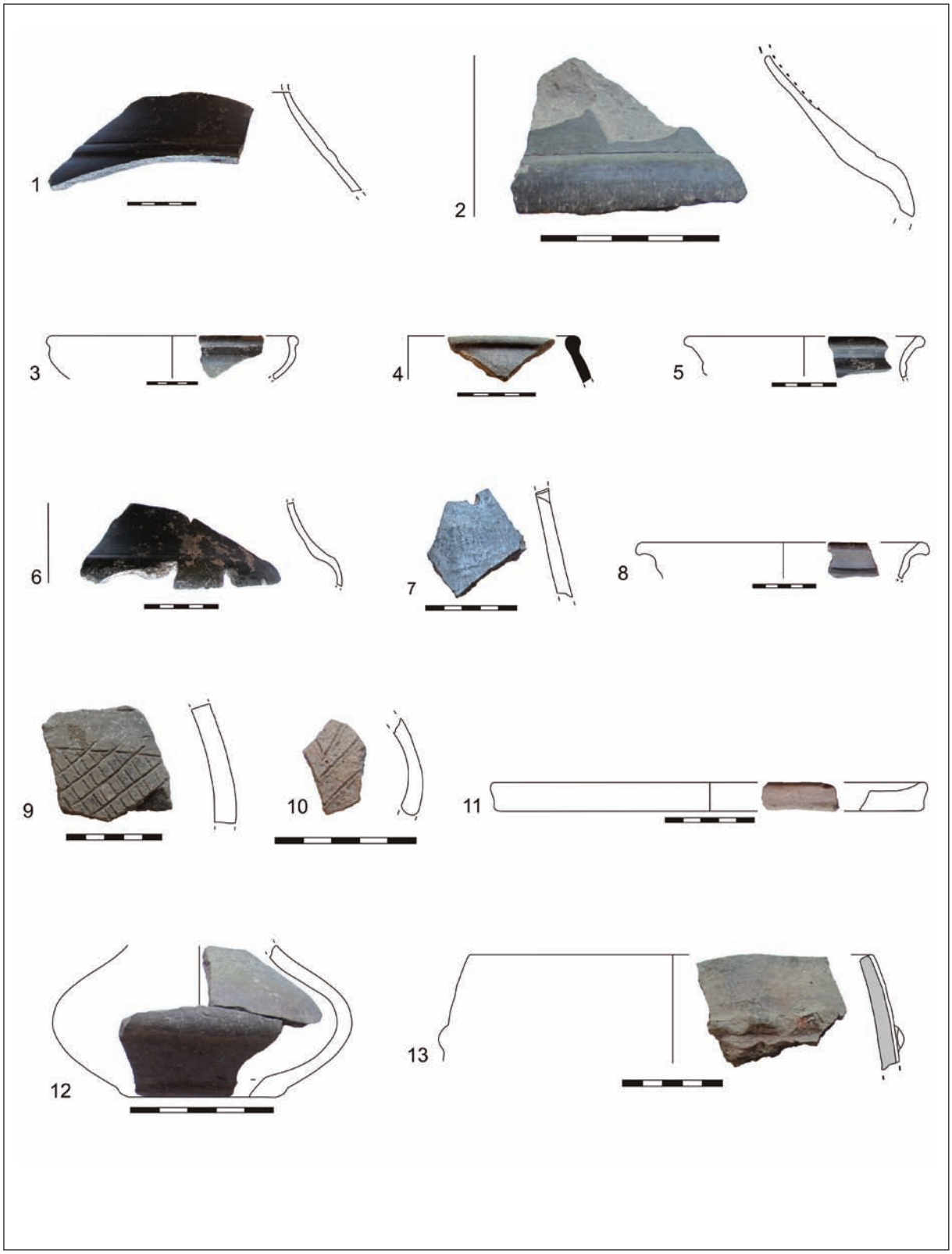


Pl. 1. Ceramic finds from Tărtăria-Pietroșița (photo: Ionuț Socol; drawing and graphics: Cristian Constantin Roman).



Pl. 2. Ceramic finds from Tărtăria-Pietroșița (photo: Ionuț Socol; drawing and graphics: Cristian Constantin Roman).



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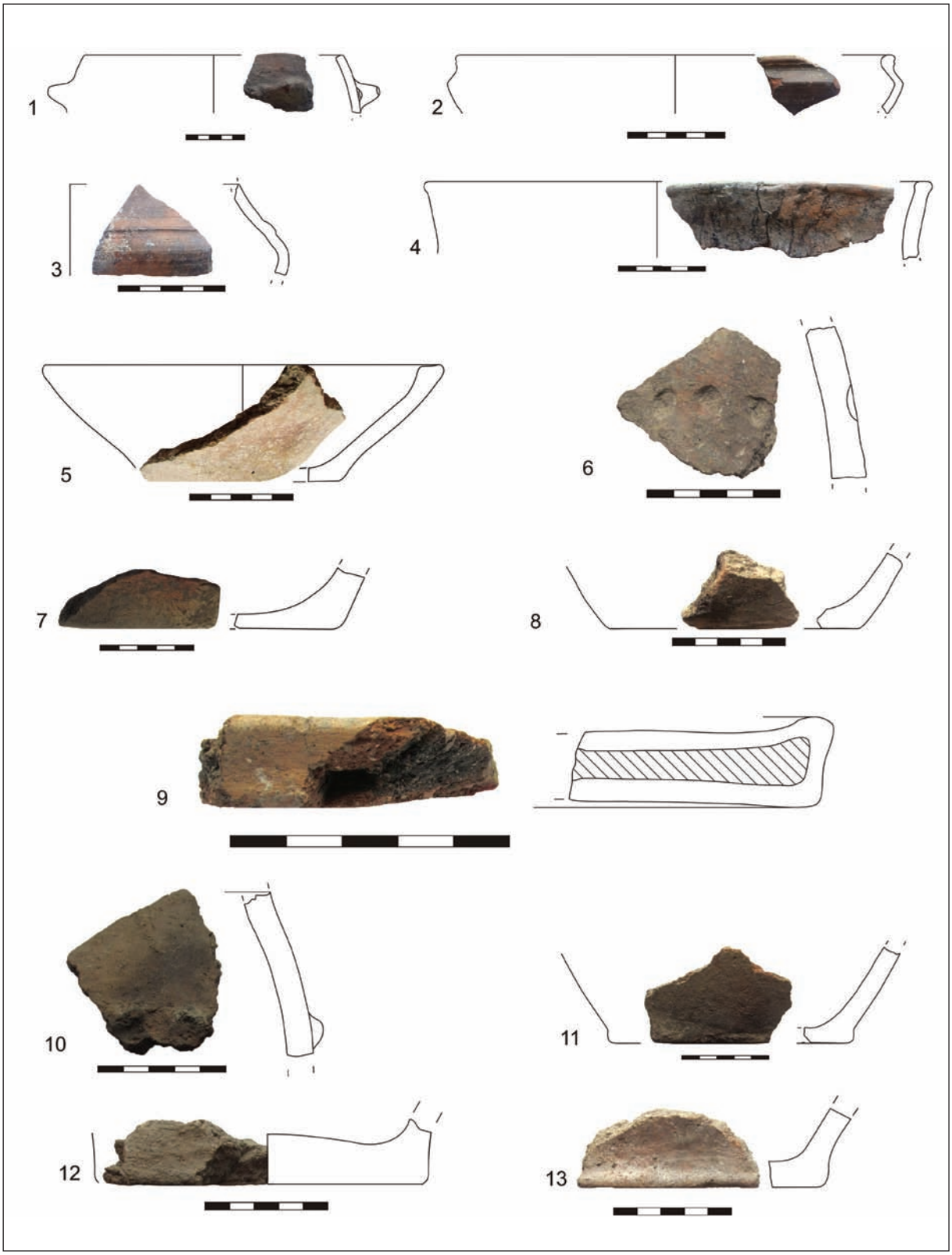

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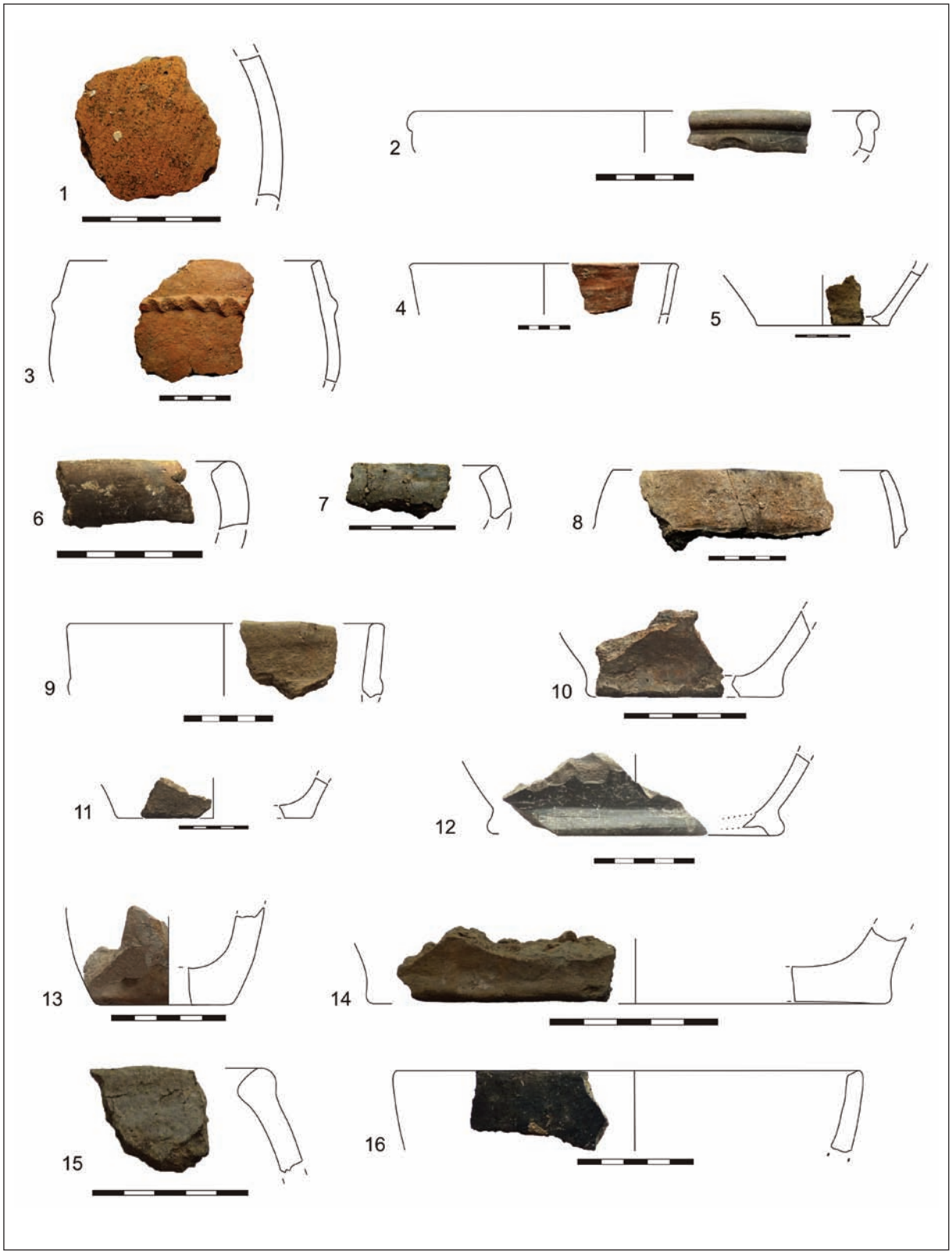
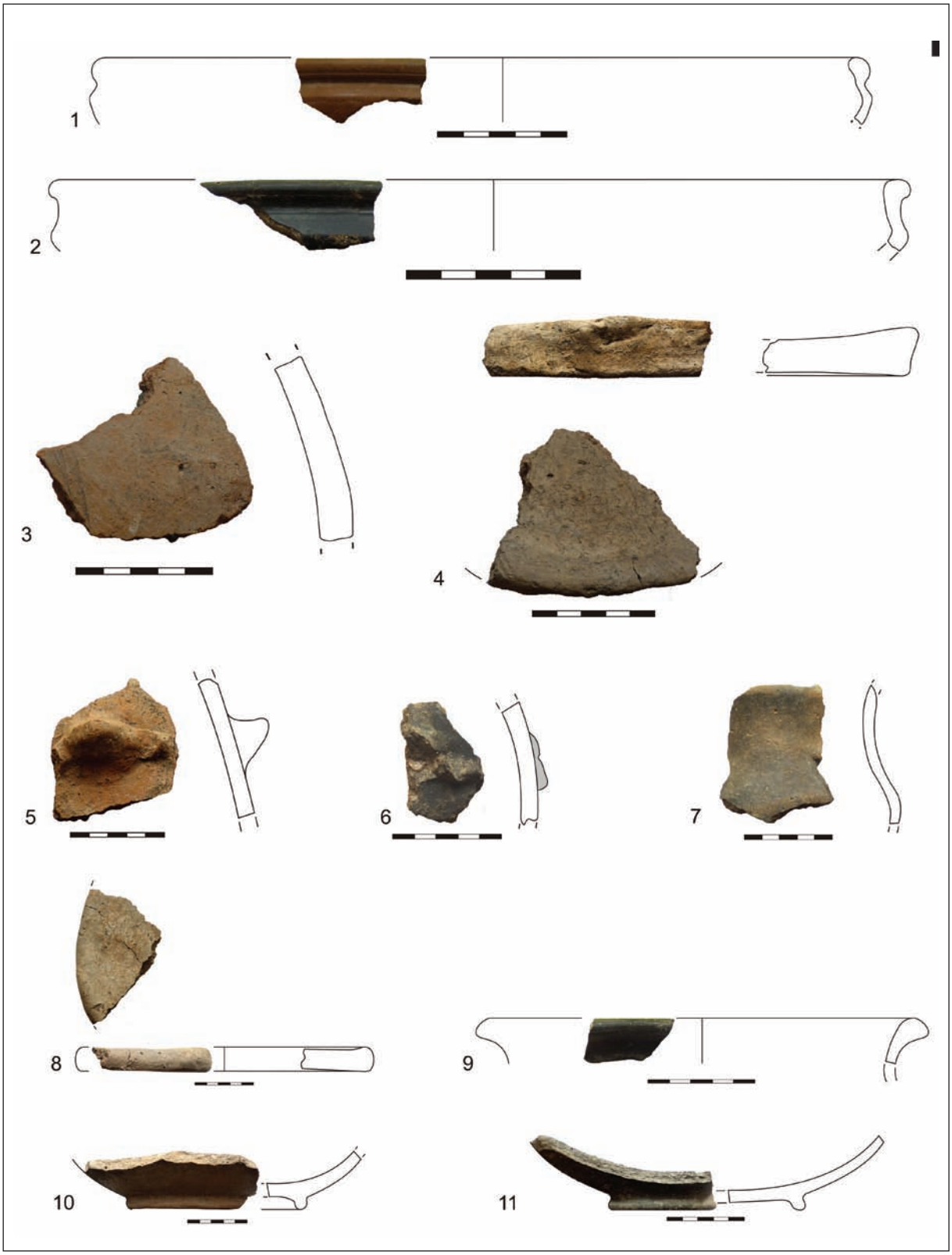
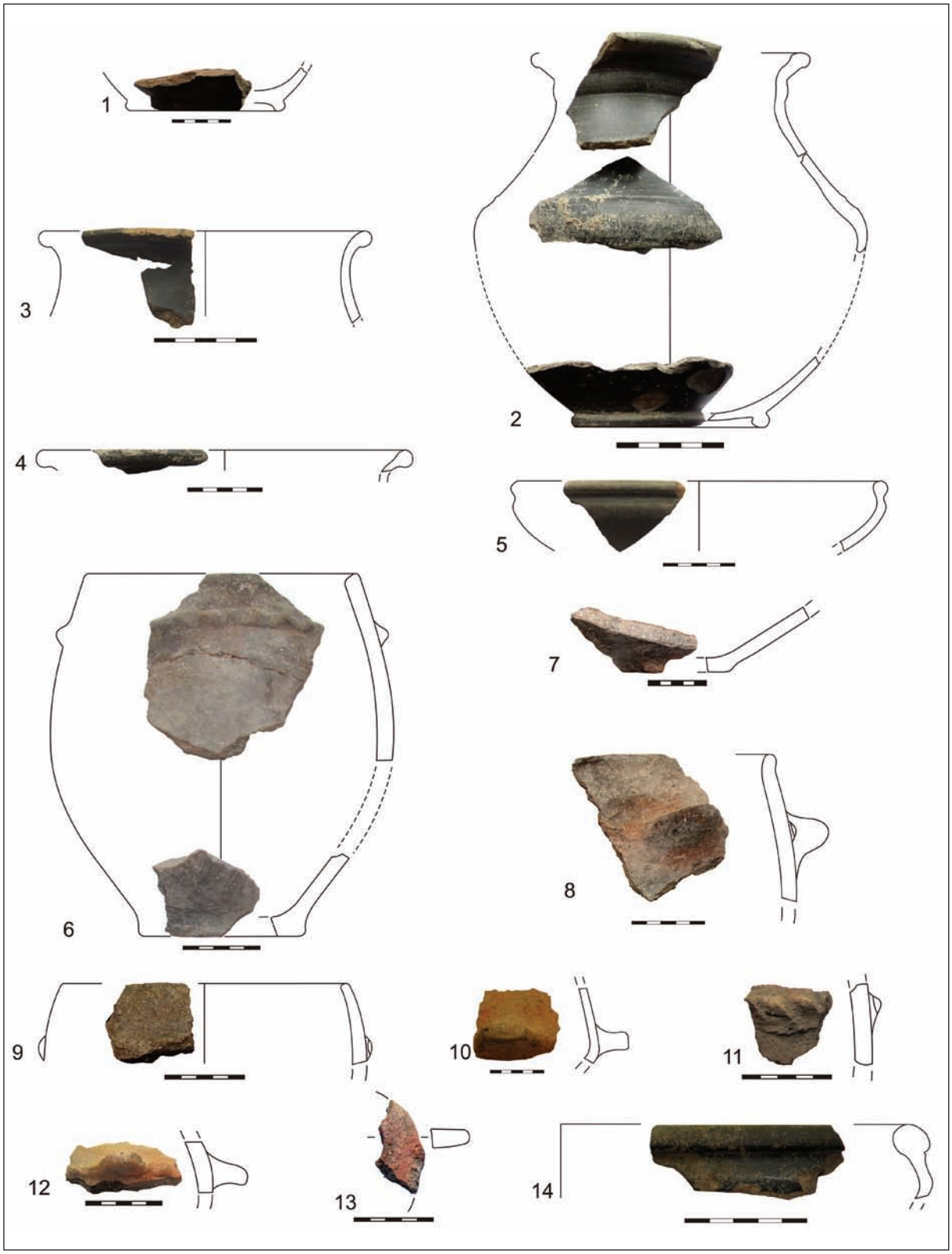


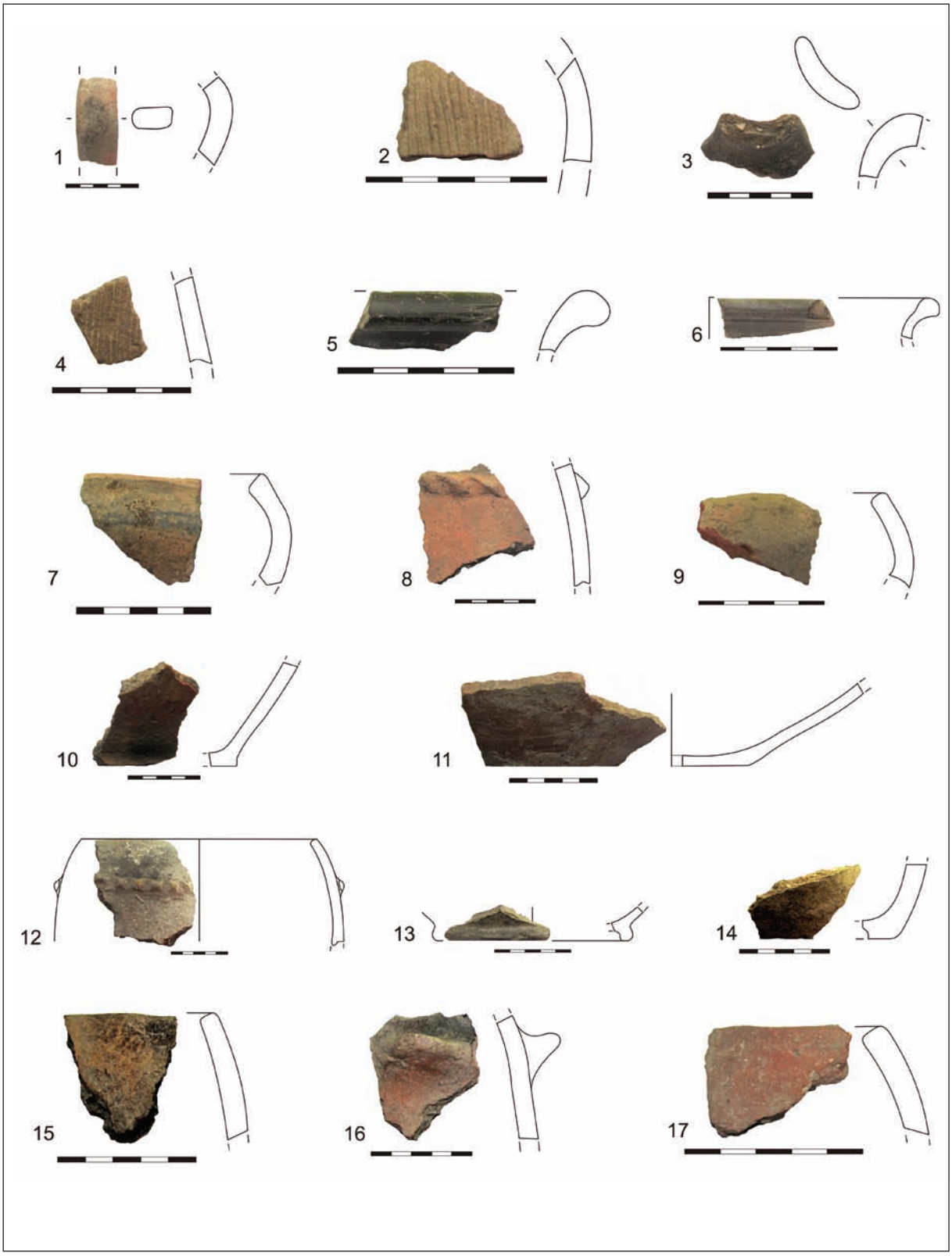
Pl. 5. Ceramic finds from Tărtăria-Pietroșița (photo: Ionuț Socol; drawing and graphics: Cristian Constantin Roman).



Pl. 6. Ceramic finds from Tărtăria-Pietroșița (photo: Ionuț Socol; drawing and graphics: Cristian Constantin Roman).



Pl. 7. Ceramic finds from Tărtăria-Pietroșița (photo: Ionuț Socol; drawing and graphics: Cristian Constantin Roman).



Pl. 8. Ceramic finds from Tărtăria-Pietroșița (photo: Ionuț Socol; drawing and graphics: Cristian Constantin Roman).

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A HOARD OF DACIAN TETRADRACHMS OF THE TYPE MEDIEŞU AURIT FROM HODONÍN

JIŘÍ MILITKÝ

Abstract: This paper presents a hoard of Dacian tetradrachms from Hodonín. The hoard was discovered in 1893, probably in the vicinity of the railway station. I. L. Červinka documented 7 coins, 4 of which have been preserved in the collections of the Moravian Museum. The hoard was composed exclusively of Medieşu Aurit type tetradrachms original to northern Transylvania. The coins may be dated to the 2nd century BC. Finds of Dacian coins have so far been rather exceptional in the Boic area and the Hodonín hoard occupies a specific position among them.

Keywords: Moravia, hoard, the Celts, the Dacians

Coins minted in the region of Dacia represent a specific group of Celtic find coins in the territory of Bohemia and Moravia.[1] The last comprehensive overview of this topic is that by E. Kolníková[2] but the author of this paper has also presented some papers on it. The majority of finds is constituted by single chance finds of individual coins. The hoard of tetradrachms from Hodonín [Göding] (distr. Hodonín) stands out as a significant exception among these single finds. The hoard has been repeatedly mentioned in the scholarly literature, but it has so far not been fully published. Therefore it merits detailed discussion here.

The find circumstances of these coins are rather nebulous. They are said to have been unearthed in 1893.[3] The first report of the discovery, focused principally on finds of Roman coins, states as follows: "Together with these denarii I have received 7 barbarian silver coins of cup-like shape. They measure 23 mm in diameter and are made of very poor silver. On their convex sides, a crudely shaped head inside a pearl wreath is depicted. The (concave) reverse carries the image of a horse prancing to left; its head, mane and nostrils as well as the joins of the legs are marked by pellets. The coins were discovered near Hodonín during fieldworks". The single depiction of a coin from this assemblage in the early works on the topic is that in I. L. Červinka's monograph,[4] where we also find an important piece of information concerning the find-spot: "7 big coins were discovered near the railway station. They are made of poor silver with images of a head and a horse". According to this note, the coins were discovered near the Hodonín railway station, i.e. roughly 900 m north northwest of the town church.[5] In the 19th century there were still fields on both sides of the railway.[6] This information provided by I. L. Červinka, who personally received the coins, seems quite trustworthy.

The seven coins acquired by I. L. Červinka need not have been all the coins discovered, there is, however, no means of verifying this assumption. Before 1913, four of the coins were added to the numismatic collection of the Moravian Museum[7] under (old) inventory numbers 6658–6659.[8] The hoard has been repeatedly mentioned in the numismatic literature, mostly in only cursive notes simply alluding to its existence.[9] It was also repeatedly referred to by E. Kolníková in her inventories of Dacian coins[10] and in her reviews of finds of Celtic coins in Moravia.[11] Also C. Preda[12] refers to it in his inventory of finds of Medieşu Aurit-type coins. Recently it has

[1] This paper was written with financial support from the Ministry of Culture of the Czech Republic (DKRVO 2019–2023/11.III.c, 00023272).

[2] Kolníková 1982. – Kolníková 1995.

[3] Radoměrský 1955, 72, 153.

[4] Červinka 1902, 274 and Fig. 137. – The depicted coin is probably our cat. no. 1. This drawing was also published by E. Kolníková: Kolníková 1982, 20, No. 15 and Fig. 1/6.

[5] Škojec 1997, 346, No. 5.

[6] Radoměrský 1955, 72, No. 153, localized the find as follows: "1893 in the town vicinity, near the railway station during fieldworks (or according to other sources during the construction of the starch factory)". Localization near the railway station nevertheless seems more likely thanks to the trustworthiness of Červinka's report.

[7] Rzehak 1913, 320–321.

[8] Kolníková 1982, 20, No. 15, also mentions the old inventory number 153.

[9] Červinka 1897, 15. – Forrer 1968, 157 and Note 2. – Červinka 1914, 179. – Eisner 1927, 15–16 and Note 130. – Pink 1974, 58, 104, No. 92. – Radoměrský 1955, 72, No. 153.

[10] Kolníková 1982, 20, No. 15 and Fig. 1/6. – Kolníková 1995, 44, No. 6, 49 and XX/6/2.

[11] Kolníková 1966, 24. – Kolníková 1998, 28. – Though E. Kolníková in her brief descriptions of the find always worked principally with the already published information, she nevertheless also presented the weight of the pieces: Kolníková *1982*, 20, No. 15 – 7.22 g, 8.18 g, 8.35 g to 8.59 g.

[12] Preda 1973, 292 and Fig. 20/15.

Fig. 1. Hodonín (okr. Hodonín), Dacian tetradrachms type Medieşu Aurit from the hoard discovered in 1893 (scale 1:1, the numbers correspond to those of the catalogue; photo: T. Smělý).

been mentioned by J. Čižmářová,[13] T. D. Părpăuţă[14] and T. Isvoranu.[15]

It is clear from this quick overview that the Hodonín hoard has often been referred to but so far not published. As already mentioned, four of the coins are kept in the collections of the Moravian Museum in Brno (Fig. 1; present inventory numbers 200017–200020; Ev. No. K 18). It is not clear, however, how they happened to end up in the Museum. I. L. Červinka[16] mentioned seven coins and the four pieces kept in Brno obviously come from this assemblage. The remaining three coins are missing and there is no information available concerning them.[17]

DACIA, TRANSYLVANIA

AR tetradrachm, type Medieşu Aurit ("Schnabelpferd")

1.
Obv.: a strongly stylized bearded head within an incomplete pearl wreath; the hair and the laurel wreath are stylized into a series of disarranged leafs; a diadem constituted by a line of pellets at the height of the forehead; a globular eye in a triangular framing; the beard is stylized into an arcuate line of pellets;
Rv.: a strongly stylized horse to the right with a fleshy, strongly arcuate body; the head is stylized into the shale of the letter Λ; the mane is stylized into two parallel lines of pellets with a straight line between them; the legs terminate with pronounced triangular hooves.
Lit.: Pink 1974, as Pl. XVII/327. – Göbl 1973, as Pl. 28/326/2. – Preda 1973, as Pl. LIX/10–11. – Dembski 1998, 107, No. 1253 and Pl. 78/1253.
Ex.: Červinka 1902, 274 and Fig. 137 (?). – Kolníková 1982, 20, No. 15 and Fig. 1/6 (?). – Čižmářová 2004, 179.
8.182 g; 22.9/21.3 mm; die-axis: 1 o'clock (inv. no. 200019; ev. No. K 17/3)

2.
Obv.: as coin no. 1, partly illegible due to wear of the die (?)
Rv.: as coin no. 1
Lit.: Pink 1974, as Pl. XVII/327. – Göbl 1973, as Pl. 28/326/2. – Preda 1973, as Pl. LIX/10–11. – Dembski 1998, 107, No. 1253 and Pl. 78/1253.
8.349 g; 22.5/23.3 mm; die-axis: 12 o'clock (inv. no. 200018; ev. No. K 17/2)

3.
Obv.: as coin no. 1, but indistinct pearl-wreath and partly illegible image – due to wear of the die (?)
Rv.: as coin no. 1
Lit.: Pink 1974, as Pl. XVII/327. – Göbl 1973, as Pl. 28/326/2. – Preda 1973, as Pl. LIX/10–11. – Dembski 1998, 107, No. 1253 and Pl. 78/1253.
8.585 g; 21.9/21.7 mm; die-axis: 6 o'clock (inv. no. N 200017; ev. No. K 17/1)

4.
Obv.: as coin no. 3, partly illegible image – due to wear of the die (?)
Rv.: as coin no. 3, but different position of the solid line in the horse's mane and a different position of the hooves
Lit.: Pink 1974, as Pl. XVII/327. – Göbl 1973, as Pl.

[13] Čižmářová 2004, 179 – the author claims that the find-spot cannot be specified.

[14] Părpăuţă 2006, 306, No. 405/IX.

[15] Isvoranu 2012, 1265.

[16] Červinka 1893, 148.

[17] We cannot exclude the possibility that they were kept by I. L. Červinka (1869–1952) in his numismatic collection.

28/326/2. – Preda 1973, as Pl. LIX/10–11. – Dembski 1998, 107, No. 1252 and Pl. 78/1252.

7.221 g; 21.4/22.6 mm; die-axis: 1 o'clock (inv. no. N 200020; ev. No. K 17/4)

The coins of the type Medieşu Aurit constitute a significant group of Dacian mints. In the earlier terminology of K. Pink[18] they are defined as the type "*Schnabelpferd*". The finds of tetradrachms of this type are concentrated in northern Transylvania;[19] their production centre has, however, not yet been identified. The weight of these specific local imitations of the tetradrachms of Philip II of Macedon range widely between 10.52 and 6.70 g,[20] and the coins were probably struck in huge series, as is indicated by the numerous combinations of dies. Their obverse carries the image of a specifically stylized head of Zeus to the right, while the reverse, that of a highly stylized horse to the right. These mints are synthetically treated, mainly in the studies of C. Preda[21] and T. D. Părpăuţă.[22] The type Medieşu Aurit is most usually attested in hoards,[23] e.g. Lusca 1840;[24] Stoiana [Esztény] 1842;[25] Târgu Mureş 1917 [Maros-Vásárhely],[26] Sadova,[27] Buneşti[28] or Sânnicolau Român 1972.[29] The most voluminous of these, the eponymous Medieşu Aurit[30] [Aranyos-Medgyes] hoard was discovered in 1903 and contained 103 tetradrachms of the studied type. According to the chronological scheme of C. Preda,[31] these coins date to the 2nd century BC. More recently, T. D. Părpăuţă[32] specified their chronology to the time-span of mid-2nd century BC – early 1st century BC. In the Boic territory, this chronology corresponds to later LT C2 and LT D1a, i.e. the end of the pre-oppidal and early oppidal periods.

The four surviving coins of the Hodonín hoard (Fig. 1) are minted with different pairs of dies. This is another proof of the intensity of production of these mints. The analysis of the elementary composition has not yet been executed in the four studied coins but the low silver content in their alloy is obvious even visually. Their weights of 8.58 to 7.22 g correspond well with the usual weight range of this coin type.[33] Three of the preserved coins (Fig. 1/2–4) have a partially illegible obverse. In the case of the coin no. 2 it may also be caused by the worn die. Keeping in mind the new chronology proposed for these mints, we may assume that the hoard was buried sometime in the second half of the 2nd century BC.

At this point we arrive at the interpretation of the find. A hoard composed exclusively of Dacian tetradrachms of a single type is rather unusual in the Boic territory. Nevertheless, in this area there are also some hoards composed exclusively of silver coins imported from the eastern Celtic area. In Moravia these include that from Moravské Budějovice[34] and an uncertain hoard from Jevíčko.[35] Hoards of the same type are also known from the territory of Bohemia – Holýšov,[36] Křivoklát,[37] Knín[38] or Zbiroh.[39] In all the cases listed above we are confronted with silver denominations from various eastern Celtic areas and we cannot be sure if they are to be taken as a proof of their circulation in the Czech lands or if these assemblages were buried by "foreigners" on their way to the Boic regions.

This question – so difficult to answer – also applies to the Hodonín hoard. In this case, there is, nevertheless, an obvious relationship between its location and the important communication route along the right bank of the Morava River. Hypothetically we may imagine that the coins were concealed by a person travelling along this route.

The Hodonín hoard is also unique in the context of other imported Dacian coins discovered in the territory of the Czech lands. In general, the coins struck in Dacia are not very common among the Celtic coin imports in the Czech lands. The most complete studies on the distribution of Dacian coin finds in central Europe are those of E. Kolníková.[40] In Moravia, two Dacian coins of the type Virteju-Bucureşti and Inoteşti-Racoasa are attested in the problematic hoard from Jevíčko.[41] A tetradrachm of the type Adîncata-Mănăstirea was discovered in Znojmo[42]

[18] Pink 1974, 83–84.

[19] Preda 1973, 292 and Fig. 20. – Părpăuţă 2006, Pl. 12. – Isvoranu 2012, 1265.

[20] Părpăuţă 2006, 101. – Isvoranu 2012, 1264.

[21] Preda 1973, 289–294.

[22] Părpăuţă 2006, 101–103.

[23] For their distribution cf. Părpăuţă 2006, Pl. 12.

[24] Pink 1974, 83. – Preda 1973, 291, No. 3. – Părpăuţă 2006, 274, No. 185.

[25] Pink 1974, 83. – Preda 1973, 291, No. 7. – Părpăuţă 2006, 292, No. 321.

[26] Pink 1974, 83. – Preda 1973, 291, No. 8. – Părpăuţă 2006, 295, No. 340.

[27] Părpăuţă 2006, 288, No. 284/I.

[28] Părpăuţă 2006, 257, No. 54.

[29] Isvoranu 2002, 1265. – Părpăuţă 2006, 289, No. 295.

[30] Pink 1974, 83. – Preda 1973, 291, No. 4. – Părpăuţă 2006, 276, No. 197. – Isvoranu 2012.

[31] Preda 1973, 294. – Isvoranu 2012, 1265.

[32] Părpăuţă 2006, 102.

[33] Părpăuţă 2006, 101 – Isvoranu 2012, 1264.

[34] Radoměrský 1955, 76, No. 170.

[35] Radoměrský 1955, 74, No. 160. – Smejtek, Lutovský, Militký 2013, 134.

[36] Militký 2013.

[37] Radoměrský 1955, 52, No. 56. – Smejtek, Lutovský, Militký 2013, 161.

[38] John et al. 2015.

[39] Radoměrský 1955, 69, No. 137. – Smejtek, Lutovský, Militký 2013, 401.

[40] Kolníková 1995.

[41] Radoměrský 1955, 74, No. 160. – Smejtek, Lutovský, Militký 2013, 134.

[42] Radoměrský 1955, 84, No. 208. – Kolníková 1995, 44, No. 8 and 48, No. XV/8/2.

and a drachma imitating the mints of Philip III of Macedon comes from an unknown Moravian site.[43] In Bohemia, Dacian coins are attested by four pieces from the oppidum of Stradonice[44] – namely tetradrachms of the types Prundu-Jublea,[45] Aiud-Cugir,[46] Lysimachoskopf[47] and a drachma of an unknown type.[48] Two tetradrachms of the type Toc-Chereluş come from the Holýšov hoard.[49] Other tetradrachms of the same type come from Ústí nad Labem[50] and from Dolejší Hůrky.[51] A tetradrachm of the Huşi-Vovrieşti type comes from Nové Sedlo.[52] A drachma of the type Dumbraveni is attested from the surroundings of Prague.[53] What is important for considerations concerning the Hodonín hoard is that no tetradrachms of the type Medieşu Aurit have so far been discovered in Bohemia.

Finds of Dacian coins are relatively common in Austria;[54] even here, however, Medieşu Aurit-type tetradrachms have not yet been detected. The finds of Dacian coins are most densely concentrated in Slovakia,[55] including three find-spots of the Medieşu Aurit-type coins – Beniakovce,[56] Slovenské Nové Město[57] and an unknown site near Zemplín.[58] Particularly interesting for our theme is the recent and so far unpublished hoard of 42 tetradrachms of the Adîncata-Mănăstirea-type from Čataj in southwestern Slovakia.[59] This treasure proves that the Dacian coins also reached the territory of present-day Slovakia in greater volumes. This is a significant fact for considerations concerning the Hodonín hoard which probably arrived at its destination via the territory of Slovakia, as is well illustrated by the distribution of finds.[60]

We may conclude that the Hodonín hoard is the westernmost find-spot of the Medieşu Aurit-type tetradrachms in Europe. Although it is unclear who brought these exotic coins to the Morava valley and under what circumstances, there is obviously a close link between their presence here and the communication route along the river. The function of these coins in the region where they were discovered remains obscure. They might have been imported as raw material intended for smelting and recycling in the local production of silver coins, as is assumed in the case of other imported silver Dacian coins, e.g. those discovered in the oppidum of Stradonice.[61] However, the coins from the Hodonín hoard are visibly made of very low purity silver and it may, therefore, have been only personal property hidden by "foreigners" travelling along the communication route. Such a consideration nevertheless remains a pure hypothesis. At any event, the Hodonín hoard is a very interesting numismatic source, illustrating the very varied monetary situation in Moravia at the turn of the Middle and Late La Tène periods.

[43] Kolníková 1995, 44, No. 9 and 50, No. XXIV/9/2.

[44] Militký 2015, 147–148.

[45] Militký 2015, 644–645, No. 2435.

[46] Militký 2015, 644–645, No. 2436.

[47] Militký 2015, 646–647, No. 2437.

[48] Militký 2015, 646–647, No. 2438.

[49] Militký 2013.

[50] Radoměrský 1955, 67, No. 129. – Klusáčková 1990, 54 and Fig. 7. – Kolníková 1995, 44, No. 5 and 50, No. XXIII/5/3b.

[51] Radoměrský 1955, 41, No. 14. – Kolníková 1995, 44, No. 1 and 50, No. XXIII/1/3b.

[52] Militký 2000.

[53] Radoměrský 1955, 62, No. 104. – Militký, Vacinová 2012, 42, No. 58.

[54] Kolníková 1995, 44, No. 11–26.

[55] Kolníková 1995, 45, No. 38–60.

[56] Kolníková 1995, 45, No. 38 and 50, No. XX/38/1.

[57] Kolníková 1995, 45, No. 52 and 49, No. XX/52/1.

[58] Kolníková 1995, 45, No. 60 and 49, No. XX/60/1.

[59] I am grateful to Dr M. Budaj for drawing my attention to this unpublished find.

[60] Părpăuță 2006, Pl. 12.

[61] Militký 2015, 148.

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THE SPREAD OF CELTIC BOW-SHAPED SPURS INTO THE AREAS OF THE PRZEWORSK AND OKSYWIE CULTURES AND THEIR FURTHER DEVELOPMENT. A COMPARATIVE STUDY

EMILIA SMÓŁKA-ANTKOWIAK

Abstract: The role of the Celts in the spread of spurs in central and northern Europe is undisputed. Assisting riders in handling horses, these items rapidly became widespread among barbarian communities, most notably of the Przeworsk Culture; a phenomenon which most likely sprang from direct encounters with the La Tène Culture. Spurs were also brought into regions located further north, where the context of their occurrence was subject to transformations; their character is indicative of influences from the Elbe region, fairly strong in the area at the time. The differences in the prevalence of spurs in the south and north of Poland became even more apparent during the Roman Iron Age, when a major development of forms and their variability is observed, and the number of finds significantly increases.

Keywords: Celtic spurs, bow-shaped spurs, Przeworsk Culture, Oksywie Culture, Wielbark Culture

The impact of the Celtic culture begot significant transformations of the cultural characteristics of peoples inhabiting the lands of central and northern Europe. The La Tène period, beyond the zone of Celtic settlement designated as the Pre-Roman Iron Age, saw profound transformations of, *inter alia*, the spiritual sphere, everyday life, production techniques and the type of objects produced and used. The spread of bow-shaped spurs among the communities of northern and central European *Barbaricum* is believed to have been one of the several innovations bred of the influence of the La Tène Culture. Spurs themselves were shown to be of much earlier origin, and yet, though the issue of their genesis has been explored since the late 19th century, it remained unresolved. Given that the earliest dated spur (5th century BC) was recovered from the site in Brezje, regija Gorenjska[1] in Slovenia, the eastern Hallstatt zone is purported to be the home of spurs. The dating was further confirmed by Greek written sources.[2]

SPURS IN THE LA TÈNE CULTURE

The process of the emergence of spurs in the Celtic zone appears equally enigmatic and thought-provoking.[3] Yet, as a separate and extensive research subject, the genesis of spurs will not be further analysed in this paper. In the area occupied by the communities of the La Tène Culture, the earliest spur, believed to be of Early La Tène origin, was discovered in the western Celtic zone, in Trugny, dep. Aisne, France.[4] Spurs were becoming increasingly popular amongst Celtic and Germanic horse riders, to become a typical element of the elite equipment in the late La Tène period, often elaborately decorated by dint of sophisticated techniques.[5] It is highly reasonable to conjecture that they marked their owner's high social status.[6] The spurs' symbolic value is shown in examples of bronze (Fig. 1), decorated specimens from the area of the Púchovská Culture (Zemplin, okres Trebišov; Prosné, okres Pov.Bystrica; Liptovská Mara, okres Liptovský Mikuláš; Trenčianske Bohuslavice, okres Nové Mesto nad Váhom),[7] the Czech Republic (Stradonice, okres Kladno),[8] France (Alise-Ste-Reine, dep. Côte-d'Or),[9] the Przeworsk Culture (Lučka, raj. Tarnopol,[10] Wesółki, gm.[11] Blizanów,[12] Kacice, gm. Pułtusk[13]) or the Oksywie Culture (Grudziądz-Rządz, gm. Grudziądz[14]). Most popular were spurs with large, knobbed terminals, and a long, narrow prick, round in cross-section. Owing to the scarcity of archaeologically registered cemeteries, in the area of

[1] Žak, Maćkowiak-Kotkowska 1988, 250–251.

[2] Olshausen 1890, 206. – Déchelette 1927, 709.

[3] Kruta 2000, 503, 602. – Bochnak 2004, 13.

[4] Déchelette 1927, 708–709 and Fig. 515/5. – Joffroy, Bretz-Mahler 1959, 29. – Bochnak 2004, 14.

[5] Pieta 2005, 55.

[6] Hedeager, Kristiansen 1981. – Tejral 2002. – Mączyńska, Rudnicka 2004. – Pieta 2005, 55.

[7] Pieta 2005, 55.

[8] Jahn 1921, 6 and Figs. 5, 6, 7.

[9] Déchelette 1927, Fig. 514/1.

[10] Śmiszko 1932, 19, 92–94, 96 and Pl. 5/21, 22, 96.

[11] *gm.* stands for *gmina* – the principal unit of administrative division of Poland (commune).

[12] Dąbrowscy 1967, 74 and Fig. 78/18.

[13] Musianowicz 1950, 33, 43 and Pl. VIII/5a, 5b.

[14] Anger 1890, 17 and Pl. 8/4. – Jahn 1921, 14 and Fig. 11.

the La Tène Culture spurs are known from settlement sites and oppida, and a broad chronological context of settlements sites renders precise dating of Celtic spurs difficult.[15]

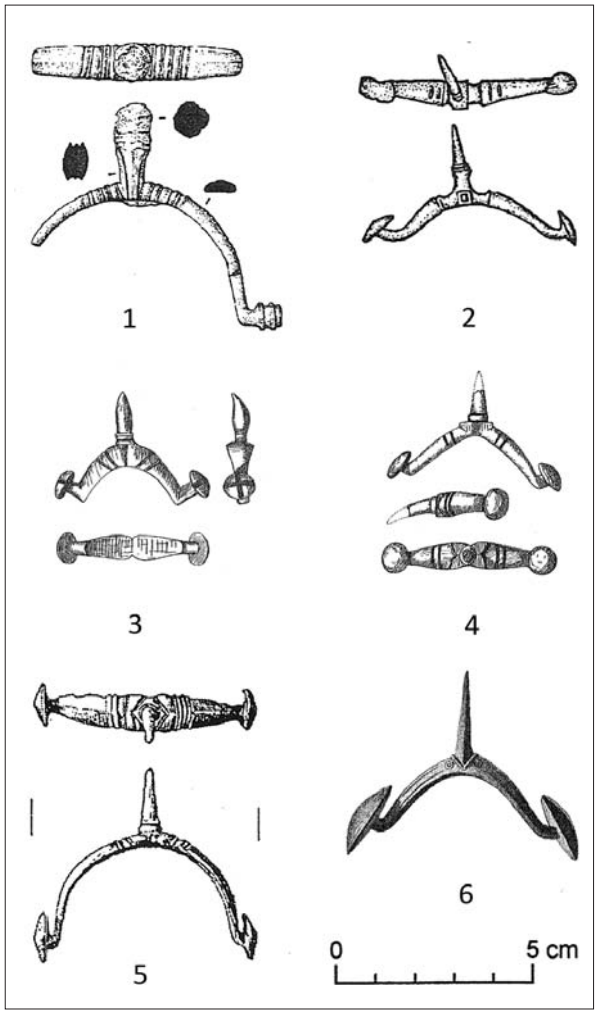

Fig. 1. Decorated specimens of La Tène spurs. – 1. Zemplin, okres Trebišov, grave 128 (after Pieta 2005, Pl. XI/7). – 2. Prosné-Uhliská, okres Pov. Bystrica (after Pieta 2005, Pl. XIV/6). – 3–4. Stradonice, okres Kladno (after Jahn 1921, Fig. 6). – 5. Kacice, gm. Pułtusk, pit 2 (after Musianowicz 1950, Pl. VIII/5). – 6. Grudziądz-Rządz, gm. Grudziądz, grave12/1887 (after Jahn 1921, Fig. 11).

EXPANSION AND WIDESPREAD USE OF CELTIC BOW-SHAPED SPURS

Owing to their uncomplicated design and the resultant simplicity of production, bow-shaped spurs were readily taken up by the communities of cultures occupying areas beyond the zone of the Celtic settlement (Fig. 2). Most extensive was the custom of using spurs adopted by the communities of the Przeworsk Culture.[16] The idea of their production is commonly believed to have appeared in this area via the communities of the Tyniec Group and the Púchovská Culture,[17] which yielded a significant amount of finds of spurs[18] and a large proportion of the bones of horses,[19] thereby evidencing the prevalence of horse riders. Tomasz Bochnak surmises that some of the spurs came into the Polish lands via the Transcarpathian region,[20] where a considerable number of these artefacts were unearthed at the cemetery of Zemplin.[21] In the area occupied by the Przeworsk Culture, single spurs are noted in phase A2 of the Late Pre-Roman Iron Age (La Tène D1) and phase A3 (La Tène D2) witnessed a marked increase in the quantity of spurs. However, it was not earlier than in phase B_1 of the Roman Iron Age that spurs became a fairly common element of a rider-warrior's gear, as evidenced by grave finds – virtually every fourth weapon burial was furnished with some elements of equestrian equipment. In subsequent phases, the proportion of graves with spurs gradually increased until phase B_2/C_1 and the period corresponding to the late section of phase C_{1a} and phase C_{1b}, when nearly every third grave with weapons contained spurs.[22] In the Late Roman Iron Age, namely in phases C_2–D, spurs ceased to be offered to the deceased as grave goods,[23] which certainly does not attest to the abandonment of horse exploitation, but rather results from the depletion of burial rites.[24]

The prevalence of bow-shaped spurs in the Przeworsk Culture is regarded as a unique phenomenon in

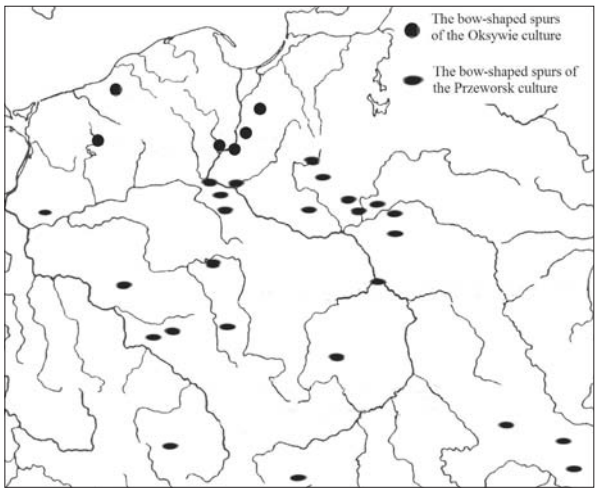

Fig. 2. Map showing the spread of spurs in the Oksywie and Przeworsk cultures in the Late Pre-Roman Iron Age (graphics: E. Smółka-Antkowiak).

[15] Pieta 2005, 55.

[16] Bochnak 2004, 14–15.

[17] Bochnak 2004, 15.

[18] Pieta 2005, 55.

[19] Pieta 1982, 182–183.

[20] Bochnak 2004, 15.

[21] Pieta 2005, 56.

[22] Kontny 2001, 102–103.

[23] Ginalski 1991, 74.

[24] Kontny 2001, 103.

the whole of *Barbaricum*, since nowhere else do we find such a multiplicity of these artefacts. However, spurs from the La Tène zone also spread further north (Fig. 2). All spurs from the Oksywie Culture are bow-shaped, based on Celtic patterns. Although they are generally believed to have reached the areas spanned by the Oksywie Culture via the Przeworsk Culture, it does not necessarily exclude the possibility that the idea of using spurs was adopted from the region of Western Pomerania,[25] as can purportedly be suggested by the spur find from Netzeband, Kr. Ostvorpommern, grave 100,[26] in Germany, dating back to phase A2 of the Late Pre-Roman Age, and therefore contemporaneous to the oldest finds of bow-shaped spurs from the area of the Przeworsk Culture.[27] In my opinion, the nature of the occurrence of these artefacts in northern Poland in the Late Pre-Roman Age points to the second possibility. A number of features associated with the occurrence of bow-shaped spurs in the Oksywie Culture refer to finds typical of the Elbe cultural zone. It is interesting that these features became particularly evident in the Roman Iron Age in the context of the spurs of the Wielbark Culture, which I shall discuss in more detail below.

QUANTITATIVE VARIATION

Some minor differences have been observed in the presence of bow-shaped spurs in the north of Poland compared to the areas occupied by the communities of the Przeworsk Culture. The first difference lies in a much smaller number of finds attributable to the Oksywie Culture, which implies a very limited use of spurs. Only a few sites were registered (Buczek, gm. Białogard,[28] Oleszno, gm. Drawsko Pomorskie,[29] Grudziądz-Rządz,[30] Nowe Dobra, gm. Chełmno,[31] Podwiesk, gm. Chełmno[32] and Nowy Targ, gm. Stary Targ).[33] Only phase B2 and essentially phase B2/C1 of the Roman Iron Age in northern Poland saw a significant increase in the use of bow-shaped spurs by the population of the Wielbark Culture,[34] the successor to the Oksywie Culture. Wielbark spurs are mostly estimated to come from phase B2/C1 to phase C1, while from phase C2 on, the decrease in the number of this category of artefacts is notable,[35] brought about by the transformation of the burial rite at the time. Compared to the area occupied by the Przeworsk Culture, spurs are still fairly infrequent in the Wielbark Culture (Fig. 3), yet their number, roughly 210 specimens,[36] provides sufficient data to undertake a broader examination of this category of artefacts within the culture under study.

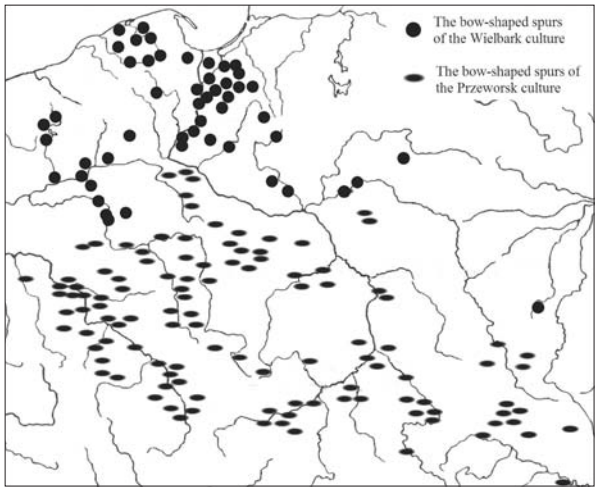

Fig. 3. Map showing the spread of spurs in the Wielbark and Przeworsk cultures in the Roman Iron Age (graphics: E. Smółka-Antkowiak).

FINDS OF SINGLE VS. PAIRED SPURS

Whether a model of using one or two spurs was favoured in the La Tène Culture has not been resolved, since the funeral rites of the Celts, archaeologically imperceptible, precludes such analyses. This aspect is nevertheless perfectly attainable within the Przeworsk and Oksywie Cultures, which exhibit a clear differentiation in this regard. In the Late Roman Iron Age, the Przeworsk spurs are typically registered as single specimens,[37] a few finds of pairs of spurs are considered to signal influence from foreign cultural circles.[38] This is indicated by the presence of imported weapons and the distinctiveness of the spurs, which are clearly different from the finds typical of the Przeworsk Culture.[39] More common in the Oksywie Culture, pairs of spurs were uncovered at the cemetery in Grudziadz-Rządz, grave 12, grave 499 and grave 591,[40] as well as in grave 31 in Nowe Dobra.[41] Paired spurs, in this case a chair-shaped type dominant in

[25] Bochnak 2004, 15.

[26] Mangelsdorf, Schönfelder 2001, 99–100 and Fig. 4/3.

[27] Bochnak 2004, 16.

[28] Kostrzewski 1919, 302.

[29] Wołągiewicz, Wołągiewicz 1963, 112 and Pl. 24/3.

[30] Anger 1890, 17, 18, 41, 45–46 and Pl. 8/4, 5. – Kostrzewski 1919, 302–303.

[31] Jahn 1921, 96.

[32] Janikowski 1971, 143–144 and Fig. 21/8.

[33] Kazimierczak, Wichrowska 1983, 41. – Kazimierczak, Wichrowska 1987, 301 and Fig. 6/h.

[34] Smółka 2013.

[35] Smółka 2013.

[36] Based on author's findings.

[37] Bochnak 2004, 27. – Łuczkiewicz 2012, 161.

[38] Bochnak 2004, 30.

[39] Bochnak 2004, 27–28.

[40] Anger 1890, 17, 41, 46.

[41] Jahn 1921, 92, 96.

the area, are fairly often registered in the Elbe region. This applies in particular to the Harsefeld-Putensen type found in central Germany.[42]

The Roman Iron Age witnessed a change and paired spurs are now recorded in the Przeworsk Culture,[43] representing over 36 % of assemblages with bow-shaped spurs. Some dead were buried with more than two spurs, albeit such findings are extremely rare. The majority of the Przeworsk assemblages, nearly 60 %, still contain only one spur,[44] unlike the assemblages of the Wielbark Culture, where at least 60 % of assemblages with spurs include a pair of these artefacts (Fig. 4).[45] It is worthy of note, that single spurs are sometimes stray finds from destroyed cemeteries, plundered burials, or are known from pre-war research, the documentation of which is often incomplete. These factors unavoidably distort the original inventory of the analysed grave assemblages.

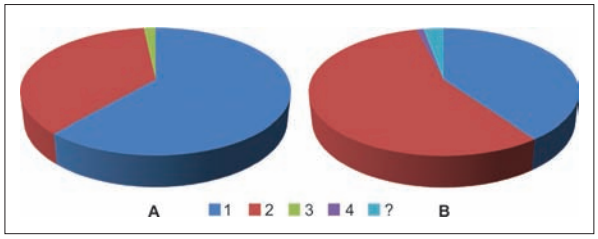

Fig. 4. Pie charts showing the ratio of burial assemblages with given number of spurs to all burial assemblages with bow-shaped spurs in the Przeworsk (A) and Wielbark (B) cultures in the Roman Iron Age (graphics: E. Smółka-Antkowiak).

IRON SPURS VS. BRONZE SPURS

La Tène spurs were mainly produced of iron, although specimens made of bronze or bimetallic artefacts are also known[46] (e.g. Zemplin, grave 128[47]). The type of metal used for the production of spurs fairly well differentiates the findings of spurs from the south and north of Poland. In the Late Roman Iron Age, the Przeworsk spurs were made solely of iron,[48] thus referring to the mainstream spur production in the La Tène cultural zone. Likewise, spur production of the Oksywie Culture at that time is marked by the exclusive use of iron as a raw material. However, in the 1st century AD spurs made of bronze came to be used in the areas occupied by the Oksywie Culture, to gradually become a distinctive feature of the Wielbark spurs. The first specimens of bronze spurs in the Oksywie Culture were unearthed in Malbork-Wielbark, gm. Malbork[49] and in the village of Nowe Dobra, where 1904 excavations of an inhumation grave produced a pair of spurs.[50] Fairly common in the Oksywie Culture, bronze artefacts were probably largely cast of raw material imported into Polish lands in the last centuries BC.[51] There is no evidence of any local production of bronze. It is nonetheless hardly reasonable to assume that this raw material was imported via the Przeworsk Culture, where bronze finds are exceptionally rare.[52] Therefore, a significant share of bronze artefacts found in the area of the Oksywie Culture was presumably cast of the raw material brought by the northwest route, as reconstructed by Tomasz Bochnak,[53] along which Celtic imports were transported to the south coast of the Baltic Sea bypassing the Przeworsk Culture.

Worthy of note is a distinctive feature of the early bronze spurs from Malbork-Wielbark and Nowe Dobra, as well as a pair of iron spurs from Grudziądz-Rządz, grave 591, that is to say, a quadrangular prick (Fig. 5). Martin Jahn argued that this element was introduced by the Germans at the turn of the eras,[54] because Celtic spurs were originally round in cross-section, sometimes slightly curved. Bow-shaped spurs with a quadrangular prick are also found in the Przeworsk Culture. Interestingly, they were mainly recovered from burials in Mazovia and Kujawy,[55] hence the northernmost areas occupied by the Przeworsk Culture. Single finds come from the region along the Dniester River,[56] where a pair of spurs is known from Bila, raj. Čortkiv (Ukraine).[57] However, because of a bronze layer preserved on one of the spurs, which attests to the fact that the artefact was originally covered with bronze, they are believed to be of foreign origin.[58]

The Roman Iron Age was typified by the practice of producing items of adornment and implements from non-ferrous metals. The presence of iron is negligible, which is explained by a specific taboo against iron objects prevalent in the Wielbark community, including the spurs they produced. Over 80 % of the excavated bow-shaped spurs of the Wielbark culture were made of bronze, compared to merely 7 % of these artefacts produced from iron (Fig. 6).[59] In contrast, bronze specimens are still very rare finds in the Przeworsk Culture in the Roman Iron Age, and account for only 3.8 % of spurs.[60]

[42] Bockius 1991, 503–504. – Bochnak 2004, 30.

[43] Ginalski 1991, 76–79.

[44] Based on Ginalski 1991.

[45] Based on analyses carried out by the author.

[46] Bochnak 2004, 14.

[47] Pieta 2005, 55 and Pl. XI/6, 7.

[48] Ginalski 1991, 55–56. – Bochnak 2004.

[49] Blume 1912. – Jahn 1921, 42, 108.

[50] Jahn 1921, 42, 108.

[51] Bochnak 2010, 403.

[52] Bochnak 2010, 403.

[53] Bochnak 2010. – Bochnak 2014, 195–197.

[54] Jahn 1921, 14.

[55] Ginalski 1991, 56.

[56] Ginalski 1991, 56.

[57] Kieferling 2002, 27–28 and Fig. 2.

[58] Bochnak 2004, 19.

[59] Based on analyses carried out by the author.

[60] Based on Ginalski 1991.

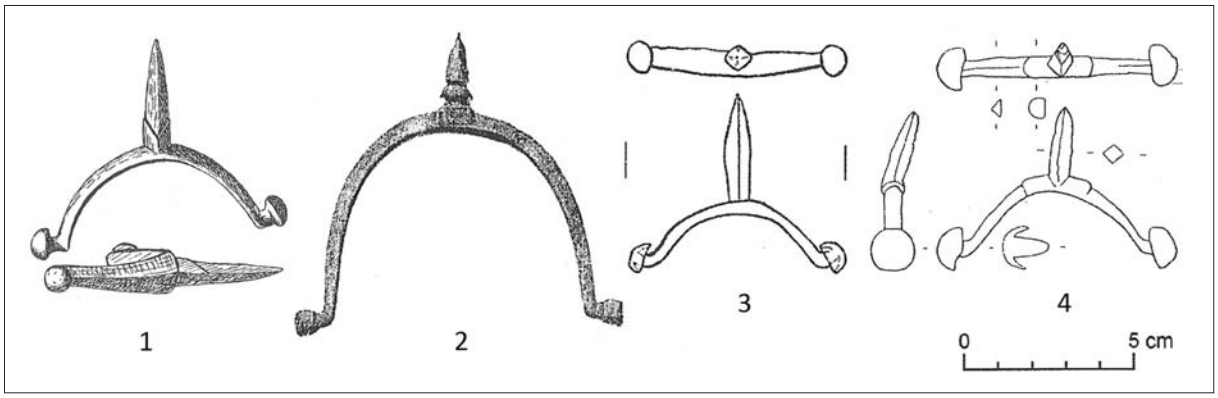

Fig. 5. Spurs with prick, quadrangular in cross-section, dating to the turn of the eras and to the 1st century AD. – 1. Malbork-Wielbark, gm. Malbork (after Jahn 1921, Fig. 47). – 2. Grudziądz-Rządz, gm. Grudziądz, grave 591 (after Jahn 1921, Fig. 48). – 3. Modła, gm. Wiśniewo, grave 10/82 (after Grzymkowski 1986, Fig. 5/1). – 4. Bila, raj. Cortkiv (after Kieferling 2002, Fig. 2).

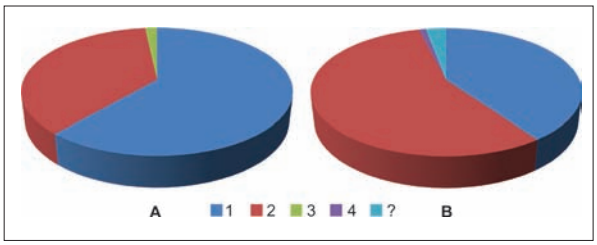

Fig. 6. Pie charts showing the ratio of burial assemblages with spurs made of given metals to all burial assemblages with bow-shaped spurs in the Przeworsk (A) and Wielbark (B) cultures in the Roman Iron Age (graphics: E. Smółka-Antkowiak).

PRAGMATIC VS. SYMBOLIC FUNCTION OF SPURS

There is a widely held consensus that spurs were used by representatives of a higher social stratus. This was the case in the La Tène period,[61] when they barely emerged in the context of central European findings; then in the Roman Iron Age, the most splendid example being elaborately decorated chair-shaped spurs, the so-called Prunksporen[62] or spurs made of silver; and in the Middle Ages, when it was the privilege of knighthood to wear spurs.[63] However, the treatment of spurs was to some extent specific to each particular prehistoric community. Sometimes distinguished by elaborate decoration, the above-mentioned spurs used by the Celts were made of non-ferrous metals, or of iron combined with bronze. The aim was to increase the value of the object, thereby enhancing the prestige of its user. Unfortunately, due to the absence of burials in the La Tène Culture we are incapable of examining a broader context that could perhaps shed some light on the social standing of spurs' users. In contrast, in the areas occupied by the Przeworsk and Oksywie cultures and later in the Wielbark Culture, virtually all spurs were recovered from burial assemblages.[64] It seems that in the Przeworsk Culture spurs were treated more pragmatically than in any other culture. The correlation of occurrence of weapons and spurs in the Late Pre-Roman Iron Age conducted by Tomasz Bochnak has shown that horse riders used weapons specially adapted to fighting on horseback.[65] The practical treatment of spurs is particularly notable in the Late Roman Iron Age, when every third grave with weapons contained that element of equestrian equipment.[66] In this context, such finds can hardly be termed exceptional.

Much scarcer finds of spurs north of the Przeworsk Culture seem to occur in a less pragmatic context. For example, it is difficult to explain in practical terms the co-occurrence of spurs and a pointed shield boss, as was the case in grave 12 at the cemetery of Grudziądz-Rządz.[67] The pointed end of the boss fulfilled its role (of offensive weapon) only during direct confrontation between foot warriors,[68] being totally useless for mounted warriors. The co-occurrence of the pointed shield boss and the spur is unprecedented within the Oksywie and Przeworsk cultures,[69] which perhaps hints at the coincidental nature of this particular burial assemblage. Nonetheless, pertinent analogies are known from the region of the Elbe River (Schokopau, Kr. Merseburg, grave 50,[70] Kollig, Kr. Mayen-Koblenz,[71] Groβromstedt, Kr. Apolda, grave from 1926[72] and Harsefeld, Kr. Stade,

[61] Pieta 2005, 55.

[62] Jahn 1921, 35. – Tejral 2002. – Mczyńska, Rudnicka 2004.

[63] Żak, Maćkowiak-Kotkowska 1988.

[64] Ginalski 1991. – Bochnak 2004, 24. – Smółka 2013.

[65] Bochnak 2004, 24.

[66] Kontny 2001, 103.

[67] Anger 1890, 17.

[68] Godłowski 1992, 80. – Adler 1993, 247. – Kontny 2001, 120.

[69] Bochnak 2004, 24.

[70] Schmidt, Nitzschke 1989, 58 and Pl. 14–15.

[71] Bochnak 2004, 26.

[72] Eichhorn 1927, 316–317.

grave 164[73]). Importantly, some of these are burials of horsemen-warriors in imported bronze vessels, typical for the area (Großromstedt, grave from 1926;[74] Harsefeld, graves 21, 26,[75] 157,[76] and 164;[77] Schkopau, grave 50 and grave 168[78]). A bronze situla used as an urn and a whole set of military equipment, comprising a complete set of weapons (sword, shield and spear) and spurs reveal the very high military and social status of the deceased and his affiliation to the group of elite warriors.[79] Although assemblages containing spurs and imported bronze vessels are unknown in the area of the Oksywie Culture, the analysis conducted by Maria Danuta and Ryszard Wołągiewicz[80] has shown that in the Late Pre-Roman Age spurs were placed in graves either along with a complete set of weapons or together with a sword, thus in graves of 'fully equipped warriors' and 'sword bearers', respectively, who constituted the highest warrior strata, from which the commanders were recruited.[81]

Remote in space from the area of concentration of the above-mentioned burials (containing spurs, a pointed shield boss and an imported bronze vessel at the same time) is a warrior burial from Mutyn, raj. Krolewieckij in Ukraine. According to Piotr Łuczkiewicz, in its assemblage foreign influences are evident, partly from the Jastorf Culture.[82] Łuczkiewicz therefore considers it likely that the assemblage is attributable to a cultural current, manifesting itself in the central and eastern parts of Europe, relating to the migration of the carriers of the Jastorf Culture to the southeast in the late 3rd and early 2nd centuries BC and the emergence of the Poieneşti-Lukaševka Culture in the region between the Prut and Seret rivers.[83]

In the area of the Wielbark Culture, hitherto spanned by the Oksywie Culture, the Roman Iron Age was marked by the abandonment of a custom of burying the dead with weapons. The comparison of grave assemblages of the Wielbark Culture and burials of the Przeworsk Culture, where dead warriors were habitually buried with weapons, is now fraught with difficulties. In both cultures, however, there are a considerable percentage of Roman imports in graves containing elements of equestrian equipment; more than a quarter of graves of horse riders from the area of the Polish lands comprise such finds.[84]

Analyses conducted by physical anthropologists have yielded surprising results, thereby challenging the hitherto prevailing stereotypes that equated graves with spurs with male burials. The practice of placing spurs in female graves is already known in the Oksywie Culture and has been registered in grave 4 at the cemetery in Nowy Targ, estimated to the Late Pre-Roman Iron Age. This woman probably died at the age of about 18–20.[85] Apart from the spurs, the grave goods consisted of chain fragments and animal bones.[86] Typical for the cemetery in Nowy Targ from the Late Pre-Roman Iron Age until the Late Roman Iron Age (when burials attributable to the Wielbark Culture are registered) was bi-ritualism, the feminine nature of grave goods, a total lack of weapons and the occurrence of a small number of objects made of iron. A similar type of grave goods typified the Jastorf Culture, the influence of which is evident in the Oksywie zone.[87] Female graves with spurs have also been recorded in the Wielbark Culture in the Roman Iron Age, to wit: in Grochy Stare, gm. Poświętne, barrow 4 (Female),[88] Poznań-Komandoria, gm. Poznań, grave 7 (Female).[89] It is obvious that a woman buried with spurs must have held a high position in society. However, whether women themselves used spurs, or if these artefacts essentially had a symbolic value is impossible to determine.

From the cemeteries of the Wielbark Culture dated to the Late Roman Iron Age, there are three known graves of males with children equipped with spurs, namely at the cemetery in Nowy Łowicz (Borowo), gm. Kalisz Pomorski, barrow 63,[90] Odry, gm. Czersk, grave 130[91] and Weklice, gm. Elbląg grave 521.[92] Each of the buried males died at the age of *adultus*, while the children from grave 130 in Odry and the grave from Weklice died at the age of *infans I* and *infans II*, respectively. The children, who were offered rich grave goods, including spurs, most likely belonged to families of high social standing in the communities of the Wielbark Culture. The graves are allegedly a testimony to the existence of hereditary power at that time.[93] Whilst burials of women and children with spurs in the Wielbark Culture do not outnumber male burials, they nevertheless account for

[73] Adler 1993, 142, 149, 269 and Fig. 48, 53.

[74] Eichhorn 1927, 316–317 – Peschel 1991, 142–144 and Fig. 5.

[75] Adler 1993, 149 and Fig. 53.

[76] Wegewitz 1984–1985, 100–101 and Fig. 37/a, b.

[77] Adler 1993, 142 and Fig. 48.

[78] Schmidt, Nitzschke 1989, 28, 58, 73 and Pl. 14–15, 40.

[79] Łuczkiewicz 2012, 165.

[80] Wołągiewicz, Wołągiewicz 1963.

[81] Wołągiewicz, Wołągiewicz 1963, 86.

[82] Łuczkiewicz 2012, 167.

[83] Babeş 1993.

[84] Wielowiejski 1981, 414. – Smółka 2013.

[85] Gładkowska-Rzeczycka 1987, 316.

[86] Gładkowska-Rzeczycka 1987, 316.

[87] Kazimierczak, Wichrowska 1987, 306.

[88] Rusin 1999. – Rusin 2001. – Kontny, Natuniewicz-Sekuła 2010, 336.

[89] Gałęzowska 2007, 198.

[90] Hahuła 1992, 61.

[91] Kmieciński, Kajzer, Walenta 1968, 34–35, 89.

[92] Kontny, Natuniewicz-Sekuła 2010, 341–342.

[93] Jaskanis, Okulicz 1981, 189.

12 % of anthropologically determined graves,[94] which provides a sufficient basis for further reflection on the role of women and children in the society.

CONCLUSIONS

The role of the Celts in the spread of spurs in central and northern Europe is undisputed. Notwithstanding several limitations appertaining to the study on the occurrence of spurs in the La Tène Culture, the model of the production and use of spurs in the Przeworsk Culture can be regarded as largely resembling the one prevalent in the Celtic zone, this most likely springing from direct contact between the two communities. The context of spurs' occurrence in the Oksywie cultural zone was subject to some transformations, the character of which is indicative of the influence from the Elbe region, fairly strong in the area at the time. The fundamental issue to be addressed is whether these influences can attest to the fact that the spurs were brought to the areas of the Oksywie Culture via the Elbe region. Was the Przeworsk Culture, to which the leading role in the expansion of spurs to the north was hitherto attributed, in fact circumvented?

Not only are features differentiating the occurrence of spurs in the Oksywie and Przeworsk cultures evident in the Late Pre-Roman Iron Age, but they tend to intensify during the Roman Iron Age, when the forms of spurs introduced by the Celts underwent further development. It is worthy of note that the Oksywie and Wielbark cultures are two separate archaeological units, identified on the basis of considerable differences in burial rites and material culture. Nonetheless, the above analysis has revealed a continuation as regards the presence of spurs in both cultures and their relation to the Elbe zone, inasmuch as both cultural units are marked by the occurrence of typically pairs of spurs, using bronze for the production of such objects, and the context of their occurrence suggesting a symbolic rather that utilitarian role of spurs, typical of the Przeworsk Culture. The symbolic meaning of spurs as emblems of wealth and prestige is considered undeniable as regards the finds in the Celtic cultural zone, the Przeworsk and Oksywie cultures and later in the Roman Iron Age.[95] Burials of 'horse riders' are widely regarded as the final resting places of heads of families and chieftains, sometimes also members of war-bands, fighting on horseback. Identification of the dead equipped with spurs with the social elite seems evident due to the mere fact that owning a horse, its purchase and maintenance undoubtedly generated enormous costs.[96] Important in the context of burials with spurs is the presence of Roman imports, in the central European *Barbaricum* acquiring an economic and political dimension, since they demonstrated the owner's contacts with the Roman civilisation.[97]

A number of similarities notwithstanding, it seems that in the north, the spur acquires a slightly different meaning compared to that in the south, where spurs are fairly frequent. Obviously displaying wealth and prestige, in the south the spur also symbolised warrior status (graves with weapons). Weapons accompanied by spurs have been found to be scarcer in burials of the Oksywie Culture, known finds referring to the ones in the Elbe region, where spurs were discovered in very exceptional contexts, i.e., in burials in imported Roman vessels. Some findings, such as the meaning of spurs in burials of women and children, or in the Wielbark graves without weapons that cannot be identified with certainty as burials of warriors, should definitely be given careful consideration. Perhaps what we are witnessing here is the reflection of the differences in the nature of these two communities,[98] with the Przeworsk Culture appearing to have been created by an egalitarian society dominated by free warriors, where males were regarded as the carriers of social information and a war democracy was in force, whereas the Wielbark society could have been marked by a clear hierarchy, domination of the elites and the high role of women as carriers of social information.[99] The problem of the presence of spurs is certainly worthy of closer scrutiny. The comparison of the determinants of social status and wealth, an analysis of the position of a horse rider-horse owner-spurs' user in the military forces of the time and the structure of the then tribes would provide the basis for more comprehensive understanding of the phenomenon of the presence of spurs.

[94] Based on the analyses carried out by the author.

[95] Schuster 2003, 269.

[96] Wielowiejski 1981, 414.

[97] Schuster 2003, 269.

[98] Gralak 2012.

[99] Gralak 2012, 401.

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REGIONAL STUDIES

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BEFORE THE CELTS CAME. THE CULTURAL SITUATION IN WESTERN LESSER POLAND AT THE END OF THE HALLSTATT PERIOD AND AT THE BEGINNING OF THE EARLY PRE-ROMAN PERIOD

PRZEMYSŁAW DULĘBA

Abstract: The subject of this study is the issue of the cultural changes at the end of the Hallstatt period and at the beginning of the Early Pre-Roman period observed in the territory of western Lesser Poland. For this period of prehistory, this area was where a boundary between the influences from the north and south of Europe lay. The chronological range of the study covers the period of frequent occurrence of the Final Phase Lusatian Culture and the Pomeranian Culture. The article also presents the question of a strong influence from the Early La Tène Culture. The present text consists of detailed characteristics of the late Lusatian and Pomeranian Culture metal finds from the western part of Lesser Poland. These finds prove beyond any doubt that there was a clearly visible chronological hiatus between the Lusatian and Pomeranian Culture settlement and the La Tène Culture settlement. Currently, there are no artefacts from the discussed part of Lesser Poland that could be dated reliably to stages LT B1b–B2a. Research on the settlement in Lesser Poland clearly reveals permanent degradation of local settlement structures beginning in Ha D. The settlement of the Pomeranian Culture and the end phase of the Lusatian Culture is marked by a major demographic crisis, which resulted in a gradual depopulation of the discussed area. For many years, it has been suggested in the literature that the transformations that occurred in the Early Iron Age were caused by serious climate changes. In the recent literature, the researchers have severely criticised this hypothesis, explicitly pointing out that there are no grounds to associate the Pomeranian Culture migration with the climate changes observed in this period. The Celts, who arrived in the area of the basin of the Upper Vistula River towards the end of the Early La Tène period, inhabited areas devoid of permanent settlement structures and most probably completely depopulated for approx. 120–130 years.

Keywords: Lesser Poland, Lusatian Culture, Pomeranian Culture, La Tène Culture, chronology, settlement changes

INTRODUCTION[1]

The end of the Hallstatt period and the beginning of the Pre-Roman period is a time when significant cultural transformations took place to the north of the Carpathians. It is a very poorly examined period, which is mainly due to the small number of finds from that time as well as to the inadequacies of previous chronology systems and classifications introduced for the cultures of the Early Iron Age. Another problem is the very diverse terminology used by scholars studying this period. At that time, the area of the basin of the Vistula and Oder rivers was occupied by several archaeological cultures including the Lusatian Culture, the Pomeranian Culture and the Cloche Grave Culture. For many years now, in the literature on the subject, there has been an argument about the approach to these cultures, the latter two in particular. Many scholars suggest that there are no major differences between the Pomeranian Culture and the Cloche Grave Culture, so they should be treated as one taxonomic unit;[2] others point out that the differences are significant enough to classify different assemblages of finds as related to two separate cultures.[3] Another contentious issue is the cultural classification of settlement materials from the end of the Hallstatt period and the beginning of the Pre-Roman period from southern Poland. For some time in prehistory, this area was where a boundary between the influences from the north and south of Europe lay. In the literature on the subject, scholars have tried to present this complicated cultural situation very generally, hence the term "Lusatian-Pomeranian-Cloche cultural complex" which is sometimes used.[4] In the present work, the Pomeranian Culture and the Cloche Grave Culture are treated as one taxonomic unit and the former name is used. Archaeological material from western Lesser Poland has no clear indicators that would make it possible to differentiate between these two cultures (Fig. 1).

Pomeranian Culture finds from the region in question were the subject of a monograph,[5] which presented the state of research from 70 years ago, now completely outdated. Some newer Pomeranian Culture finds from the region were analysed in B. Konieczny's master's thesis (1988). The Lusatian Culture materials from its final phase have been partially studied (from the area of Kraków), but there is no monograph concerning the entire region. There are

[1] The present paper is a modified version of a chapter from the author's PhD dissertation, which he prepared thanks to financial support from the Ministry of Science and Higher Education, as part of the project 'The Early Phase of the La Tène Culture in Western Lesser Poland'.

[2] MALINOWSKI 1969. – WOŹNIAK 1979. – CZOPEK 1992.

[3] ŁUKA 1979. – WĘGRZYNOWICZ 1995.

[4] MARCINIAK 1973.

[5] NOSEK 1946.

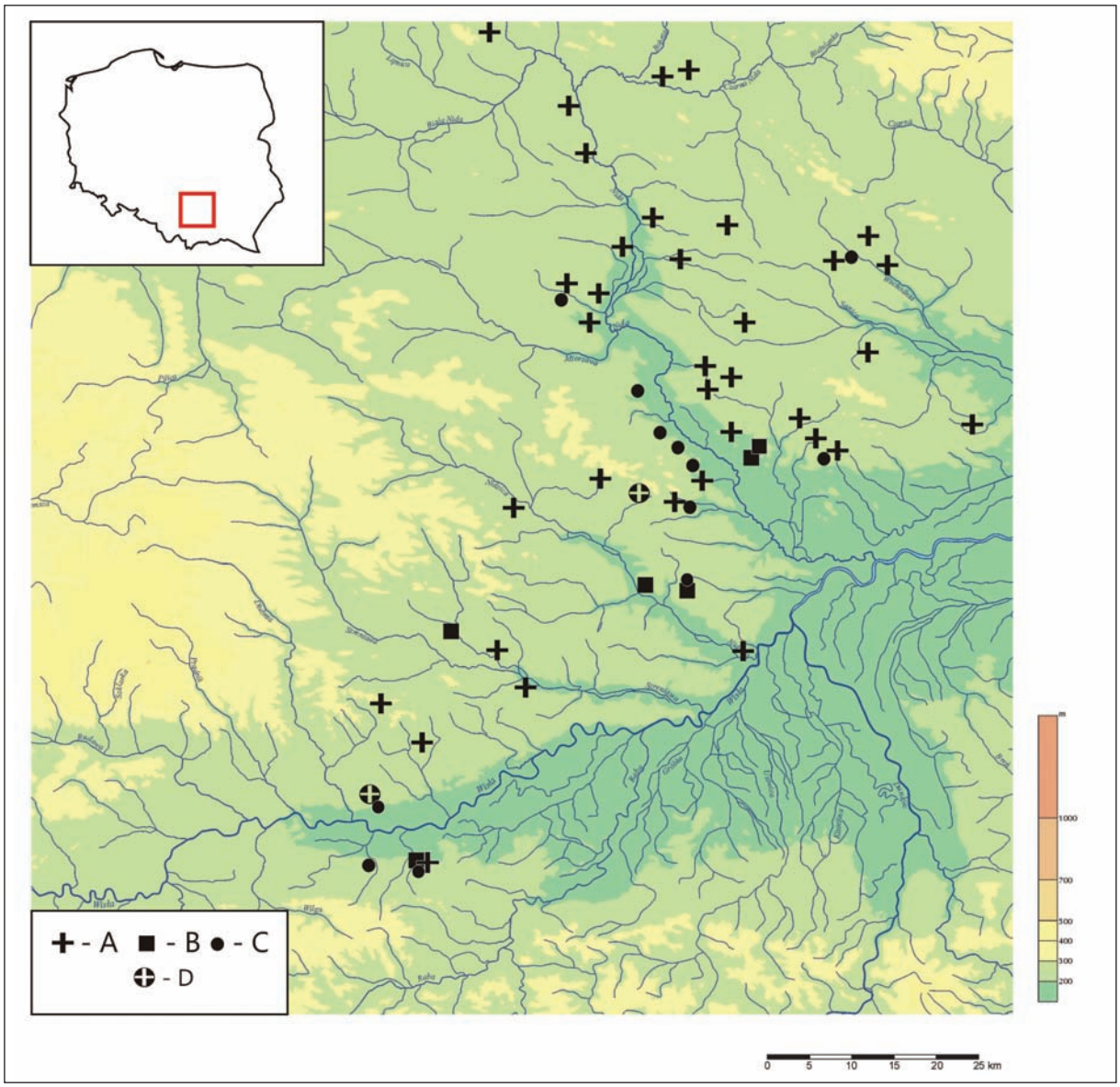

Fig. 1. Cultural situation at the end of the Hallstatt and the beginning of the Early Pre-Roman period in the area of western Lesser Poland. – A. Cemeteries and graves of the Pomeranian Culture. – B. Settlements of the Pomeranian Culture. – C. Stray finds of the Pomeranian Culture. – D. Cemeteries with mixed elements of the Lusatian and Pomeranian cultures (elaborated: P. Dulęba, P. Martyński).

only a few synthetic publications including mentions of the final phase of Lusatian Culture settlement.[6]

In the Hallstatt period, there was a very interesting cultural situation in western Lesser Poland. Lesser Poland Upland and southern Subcarpathia were settled by the Upper Silesian-Lesser Polish group of the Lusatian Culture, divided into two consecutive chronological phases: Iwanowice-Klin and Biskupice-Tyniec.[7] In the final stage of the Lusatian Culture, there was an expansion of the Tarnobrzeg Group, which occupied the areas between the Nida and Nidzica rivers, previously settled by the Upper Silesian-Lesser Polish community.[8] The main problem concerns the dating of these transformations. It is very difficult, especially in the case of the Tarnobrzeg Group, where even graves hardly ever contain metal artefacts that could be used as good chronology indicators, and development trends of pottery styles are not easily perceptible. At present, we have very few finds from the final phase of the Lusatian Culture that make it possible to date assemblages precisely. The materials of the Tarnobrzeg Group from the area to the west of the Vistula can be classified as phase III according to local periodization, but its precise chronological position is not certain, so it should be related very generally to Ha D.[9] There are also slightly different finds from the lower Dunajec, treated in the latest publications as a separate group, referred to as

[6] Gedl 1982. – Rydzewski 1997.

[7] Gedl 1982, 29–31.

[8] Matoga 1989, 263–266.

[9] Matoga 1989, 269.

"sites of Type Gorzyce".[10] Unfortunately, up till now, the above-mentioned sites have only provided a very small number of artefacts that can help reconstruct the chronological transformations of the final phase of Hallstatt period settlement.

What is very helpful for investigating chronology is the work by H. Parzinger (1988), containing a thorough chronological division into 10 horizons covering the entire Hallstatt period and the beginning of the La Tène period in a broadly understood "Alpine" region, between the Sava and the Moselle. Admittedly, not all those observations can be automatically related to the region which is the subject of the present work, where there are no solid grounds for distinguishing different horizons. On the other hand, that work is a very good point of reference for comparing stylistic transformations in the material culture as well as those concerning relative and absolute chronology, which is based on a very large number of diverse sources. The classification of the main forms presented below, namely fibulae with a late Hallstatt construction, is based on G. Mansfeld's (1973) classification, which was developed for a large collection of such artefacts from the Hallstatt period defensive settlement of Heuneburg in Baden-Württemberg.

THE FINAL PHASE OF THE LUSATIAN CULTURE IN WESTERN LESSER POLAND

At the close of the Hallstatt period, settlement of the Upper Silesian-Lesser Polish group continued in the closest surroundings of today's Kraków as well as the Bochnia Foothills and the Wieliczka Foothills. In this period, there were a large number of settlements related to salt output,[11] as well as fortified upland settlements (Biskupice, Tyniec-Grodzisko, Tyniec-Opactwo, Piekary, Dobczyce-Stare Miasto, Dobczyce-Kopiec Charstek). Unfortunately, it is very difficult to distinguish the latest materials and determine when and how settlement of the Lusatian Culture collapsed. The materials from the upland settlements have not been studied thoroughly yet. We know only a few settlements in Kraków that have been explored thoroughly and reported on, including Site 5 in Kraków-Wyciąże,[12] Site 62 in Kraków-Mogiła,[13] Sites 17–20 in Kraków-Pleszów[14] as well as Sites 1 and 17 in Podłęże, Wieliczka District, on the other bank of the Vistula.[15] Also, graves of the Lusatian Culture found at Site 1 in Kraków-Mogiła are dated to the end of the Hallstatt period.[16]

The most common items among metal artefacts from the settlements near Kraków are bronze pins with a very long chronology. The only bronze artefacts with a more precise chronology dated to the latest phases are fishtail-shaped pendants. Such an artefact has been found in the cultural layer in a settlement in Kraków-Pleszów, Sites 17–20.[17]

The population of the Lusatian Culture from the surroundings of today's Kraków was hugely influenced by the Pomeranian Culture, but it is hard to classify the cemetery in Kraków-Pleszów and the nearby settlements as "pure" Pomeranian Culture complexes. As for the pottery from the settlements, it is in a style slightly similar to Pomeranian vessels, but clearly different in terms of morphological details and manufacturing technology. These features indicate that local settlement continued. The prevailing forms found in settlement features are semicircular bowls; bowls with rims bent inwards; large-sized egg-shaped and barrel-shaped pots with the lower part roughened and smeared, separated from the upper part by a plastic band decorated with finger impressions, or similarly formed vases with distinct neck parts. A local form particularly numerous in the Upper Silesian-Lesser Polish group is plates with a plait ornament.[18] In settlements including the upland ones, there are numerous items of saltmaking pottery in the form of roughly made slim glasses. The range of occurrence of saltmaking vessels from settlement sites is limited to the southern part of western Lesser Poland.[19] Saltmaking must have been very well developed, as there are a huge number of production items related to it in settlements near today's Wieliczka.[20] Saltmaking pottery occurred in Lesser Poland in virtually the entire Hallstatt period. At Site 2 in Kraków-Tyniec, saltmaking glasses occurred in all layers dated to the Hallstatt period,[21] but it is difficult to determine whether they lasted till the beginning of the Early Pre-Roman period. It is mainly due to the fact that it is difficult to date the end of the functioning of the above-mentioned settlement sites.

Also, a small number of sepulchral sites are known from the Early Pre-Roman period from western Lesser Poland, whose cultural origin is very difficult to determine definitely. These sites could hypothetically prove the coexistence of groups of the Lusatian and Pomeranian Culture population.

What plays an important part in the discussion of the chronology of the period in question in the basin of the upper Vistula is the latest materials from graves

[10] Dzięgielewski, Godlewski 2009, 193 and Fig. 1.

[11] Kadrow, Nowak-Włodarczak 2003, Fig. 10.

[12] Cabalska 1983.

[13] Bazielich 1992. – Bazielich 1992a. – Bazielich 1993. – Bazielich 1995.

[14] Kogus 1984. – Kogus 1985.

[15] Rydzewski 1989. – Dzięgielewski 2010. – Dzięgielewski, Szczerba, Chudzińska 2011.

[16] Woźniak 1961.

[17] Kogus 1985, Pl. XLIX/13.

[18] Bazielich 1993, Pls. XIV/1–4 and XXIII/7.

[19] Kadrow, Nowak-Włodarczak 2003, Fig. 10.

[20] Borowczyk, Schellner 2006, 635.

[21] Woźniak, Zoll-Adamikowa 1971, 22.

of the Lusatian Culture at Site 17 in Kraków-Pleszów (Fig. 2–3). The site includes 14 cremation pit and urn graves that can be related to the final phase of the Lusatian Culture in this region. In the final phase, it is a small sepulchral complex, located on the north edge of the site, in the immediate hinterland of the settlement. The site has yielded material that makes it possible to determine the final phase of the Lusatian Culture in this region. Graves from the latest phase of the cemetery in Kraków-Pleszów have recently been published completely,[22] which exempts us from a detailed analysis, but some of the presented theses, especially concerning one grave (grave 1187), call for a discussion. The cemetery in Kraków-Pleszów was in use from Period IV of the Bronze Age.[23] Graves from the latest phase are distinctly different from earlier graves belonging to the phase Iwanowice-Klin, which was distinguished by M. Gedl. Graves 1404 and 1422 are pit graves, while other graves are shallow urn graves.[24] Graves of this type have close analogies, especially in Upper Silesia, among burials of Phase VI at the cemetery in Kietrz, Głubczyce District, in particular.[25] The grave goods include ceramic vessels as well as metal ornaments and garments. The assemblages of ceramic vessels are not abundant and, aside from the urn, they usually include two or three additional vessels. Some of the urns were covered with plates. The morphology, manufacturing technology and ornamentation of the vessels indicate characteristics that have analogies both in Lusatian Culture regions from the end of the Hallstatt period and in Pomeranian Culture assemblages, from eastern Greater Poland in particular.[26] Graves 1403, 1404 and 1415 contained small fragments of La Tène Culture wheel-thrown vessels.[27] The occurrence of workshop pottery of the La Tène Culture in assemblages of the Lusatian Culture has so far been confirmed only at the cemetery in Kietrz, where, in Grave 1680, three handmade vessels typical of the Lusatian Culture have been found together with a wheel-thrown footed vase.[28] This assemblage is dated on the basis of a heavily corroded late Hallstatt iron fibula, which can probably be regarded as a variant of fibulae of the Kowalowice type.[29] It is worth mentioning that in a nearby settlement in Kraków-Wyciąże, a fragment of a wheel-thrown bowl of the Braubach type was found, imported from the area of the La Tène Culture.[30] Pottery of this type is the most characteristic vessel form of phase LT A and occurs occasionally in phase LT B1.[31]

[22] Poleska 2006, 23–31 and Figs. 2–6.

[23] Rook 1963, 180.

[24] Poleska 2006, 24.

[25] Gedl 1985.

[26] Poleska 2006, 24–28.

[27] Poleska 2006, Figs. 3/1403/5, 4/1404/4 and 5/1415/4.

[28] Gedl 1985, Pl. I/6–10.

[29] Gedl 1985, Pl. I/7.

[30] Poleska 2006, 58 and Fig. 10/4.

[31] Meduna 1980, 88.

However, we will focus on the analysis of metal finds from Kraków-Pleszów, which will help determine the chronology of the site. In grave 12, there was a late Hallstatt bronze fibula,[32] which can be classified as belonging to a large group of fibulae with a decorative foot (*Fußzierfibel*) (Fig. 2/5). This fibula, preserved without the spring and a part of the needle, has a massive lenticular bow, and the ornamental boss on the foot is flattened. Artefacts analogous to the find from Podłęże have been found in graves 1801 and 2062 at the cemetery in Kietrz,[33] as well as at an upland settlement in Żywiec-Grojec.[34] Fibulae of the *Fußzierfibel* type, which occur in large numbers in the western Hallstatt zone, have so far been considered the main indicators of phase Ha D3.[35] Fibulae of this type occur widely in the area of the Lusatian and the Pomeranian Cultures.[36] In G. Mansfeld's typology of Late Hallstatt fibulae, the find from Kraków-Pleszów would belong to type F2.[37] However, items of type F2 are very diverse, so different variants have been distinguished. G. Kossack classified analogous fibulae as class A, variant 3.[38] H. Parzinger has called fibulae of this type variant Kietrz, and this term has caught on in the literature. He has implied that fibulae of the Kietrz variant are the latest ones of the *Fußzierfibel* type and should be dated to the 5th century BC.[39] Such a late dating of these forms would indicate that the chronology of variant Kietrz can be related to horizons 9–10 according to Parzinger.[40] It seems that it can apply to horizon 9 in particular (approx. 480/470–450/440 BC), which was a period when the Late Hallstatt style was still present and the first hallmarks of the La Tène style appeared, which can be related to phases Ha D3/LT A1 or LT A1 in the traditional La Tène Culture classification.[41] Grave 10 from Kraków-Pleszów contained a long bronze 32-coil spring (Fig. 3/1), wrapped around an iron pivot,[42] which is probably a fragment of a similar fibula with a Late Hallstatt structure.

[32] Poleska 2006, Fig. 2/12/3.

[33] Gedl 1985, Pls. III/2 and V/9.

[34] Gołąb, Madyda-Legutko 2004, 293 and Fig. 4/1.

[35] Woźniak 1979, 140 and Fig. 3. – Woźniak 1995, 202. – Gedl 2004.

[36] Woźniak 1995, Fig. 1, List 1.

[37] Mansfeld 1973, Fig. 1.

[38] Kossack 1988, 122 and Fig. 5/9–10.

[39] Parzinger 1993, 516.

[40] Parzinger 1988, 125.

[41] For a long time, in the extensive literature concerning the close of the Hallstatt period and the beginning of the La Tène period in the broadly understood Alpine zone, various authors have formulated mutually exclusive periodization systems. Some of them have distinguished Phase Ha D3, others regarded it as part of LT A, and also transitory graves between both these phases have been distinguished, cf. Binding 1993, 45–71.

[42] Poleska 2006, Fig. 2/10/4.

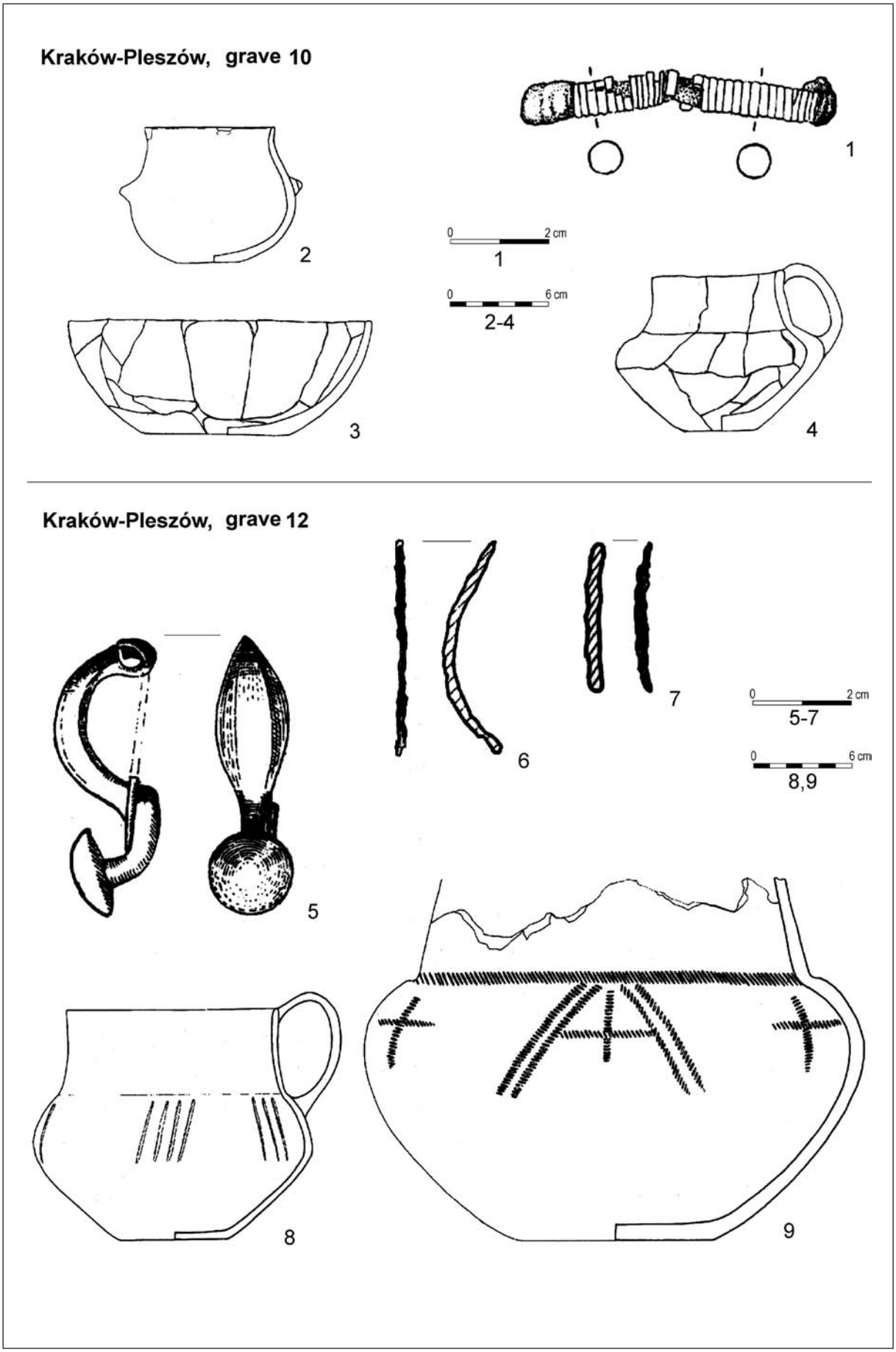

Fig. 2. Kraków-Pleszów, site 17, graves 10 and 12 (after Poleska 2006).

In Grave 1416, there was a small fragment of a bronze bracelet or armlet with a semicircular section, flat on the inside, and ornamented with a set of grooves forming small thickened areas on the outside.[43] This artefact has been preserved only partly, which considerably hinders precise dating. Its closest analogy is a fully preserved open bronze bracelet (Fig. 5/1), which has been found in the accumulation layer Va at the upland settlement in Kraków-Tyniec, Site 2, at the place of the present-day Benedictine abbey.[44] Unfortunately, circular ornaments of this type, decorated with a very simple ornament in the form of a set of grooves, have a very wide chronology. From the western Hallstatt region they are known from as early as the beginning of Ha D (horizon 6 according to H. Parzinger), till the beginning of LT B1.[45] The type closest in terms of form to the fully preserved bracelet from Kraków-Tyniec is the type known from cemeteries of the Hagenau Group on the upper Rhine.[46] This form of bracelet occurred with materials characteristic of horizon 8, which can be related to phase Ha D3.[47] Bracelets whose form is similar to the finds from Kraków-Pleszów and Kraków-Tyniec have been found at the site in Rembielin, Przasnysz District, which are now considered to be related to the Pomeranian Culture.[48] Two fully preserved specimens and three fragments of bronze bracelets of this type come from Rembielin. These finds have been dated to phases LT B1 – LT B2,[49] but, due to the unclear circumstances of their discovery, we cannot determine whether they come from graves or settlement features and to which horizon of this site they are related. Therefore, bracelets decorated with sets of grooves should be dated cautiously. as it is equally possible that they came there when the site in Rembielin was inhabited by the Lusatian Culture population.

Another metal artefact impossible to date precisely is a fragment of a bronze necklace with diagonal grooves, found in grave 1415.[50] Forms of circular ornaments with such decoration occurred virtually throughout the Hallstatt period, both among grave goods and in hoards.

The most interesting grave assemblage in Kraków Pleszów is grave 1187, identified as a Jastorf Culture burial, dated to the end of the Early and the beginning of the Late Pre-Roman period, and correlated with phases LT B2–C1.[51] Artefacts from this assemblage, like in the above-mentioned cases, have been preserved in fragments only, which makes it difficult to classify them accurately. The only vessel from grave 1187, an urn with a slightly biconical profile (Fig. 3/8), has been preserved without the upper part, so there is insufficient justification for associating it with Jastorf Culture two-part vessels. In terms of proportions and shape, it is similar to other forms which occurred in other graves at the same cemetery, and in terms of technology (a chamotte admixture in the body), it is no different from standard pottery from nearby settlements of the final phase of the Lusatian Culture.[52]

The most problematic artefact from this assemblage is an iron fibula with a two-part construction, preserved only in the form of a part of the bow with a disc riveted to it and a characteristic profiled pivot with a length of over 4 cm (Fig. 3/2). The bow of this fibula is shaped like a willow leaf, ornamented with a lenticular thickened area. The fibula has been identified as a unique hybrid of the Kowalowice type (*Kaulwitzer Fibeln*) and disc fibulae (*Scheibenfibeln*) characteristic of the Jastorf Circle[53] and dated to the end of the Early and the beginning of the Late Pre-Roman period. This artefact clearly differs from what is considered its analogies in the size and shape of the riveted disc, the shape of the bow and the already mentioned atypical form of the spring pivot. The fibula is one of a kind, but in many respects it is similar to artefacts with a Late Hallstatt construction, especially to fibulae of type dZ3 (*Doppelzierfibel*) according to Mansfeld. These fibulae, common in the western Hallstatt circle, are decorated with two small discs, one of them riveted to the bow, the other to the foot.[54] A large number of bronze artefacts of this type, decorated with discs very similar to the specimen from Kraków-Pleszów, have been found at the fortified settlement of Mont Lassois, Côte-d'Or Department, Burgundy (Fig. 4).[55] A similar iron specimen also comes from the well-known princely grave discovered in nearby Vix.[56] This burial, dated to the end of the 6th and the beginning of the 5th centuries BC, is associated with horizon 8.[57] Fibulae of type dP4 according to Mansfeld still existed in horizon 9, which can be seen in the case of the eponymous site in Hallstatt.[58] The decoration of the bow of the fibula from Kraków-Pleszów suggests the Early La Tène

[43] Poleska 2006, Fig. 8/1416/4.

[44] Woźniak, Zoll-Adamikowa 1971, 22.

[45] Parzinger 1988, Pls. 111/14, 114/85, 120/79a and 122/112/116.

[46] Parzinger 1988, Pl. 71/89.

[47] The main forms of this horizon are brooches of the type Fußzierfibel F1 and Doppelpaukenfibel dP4 according to Mansfeld, cf. Parzinger 1988, 62, Tab. 3.

[48] Waluś 1992.

[49] Woźniak 1995, 206.

[50] Poleska 2006, Fig. 5/1415/6.

[51] Woźniak, Poleska 1999, 381–383.

[52] E.g. from a settlement at Site 4 in Strumiany, Wieliczka District, excavations carried out by K. Reguła, the collection of the Kraków Saltworks Museum in Wieliczka.

[53] Lorentzen 1993, 75–79, Pl. 16. – Woźniak, Poleska 1999, 382.

[54] Parzinger 1988, Pls. 71/74, 82/39b, 113/52 and 117/44d.

[55] Joffroy 1960, Pls. 20/12–14, 22/7–9, 23/4–5 and 26/17.

[56] Joffroy 1960, Pl. 27/1.

[57] Parzinger 1988, 123–124.

[58] Parzinger 1988, 103 and Pl. 131/6.

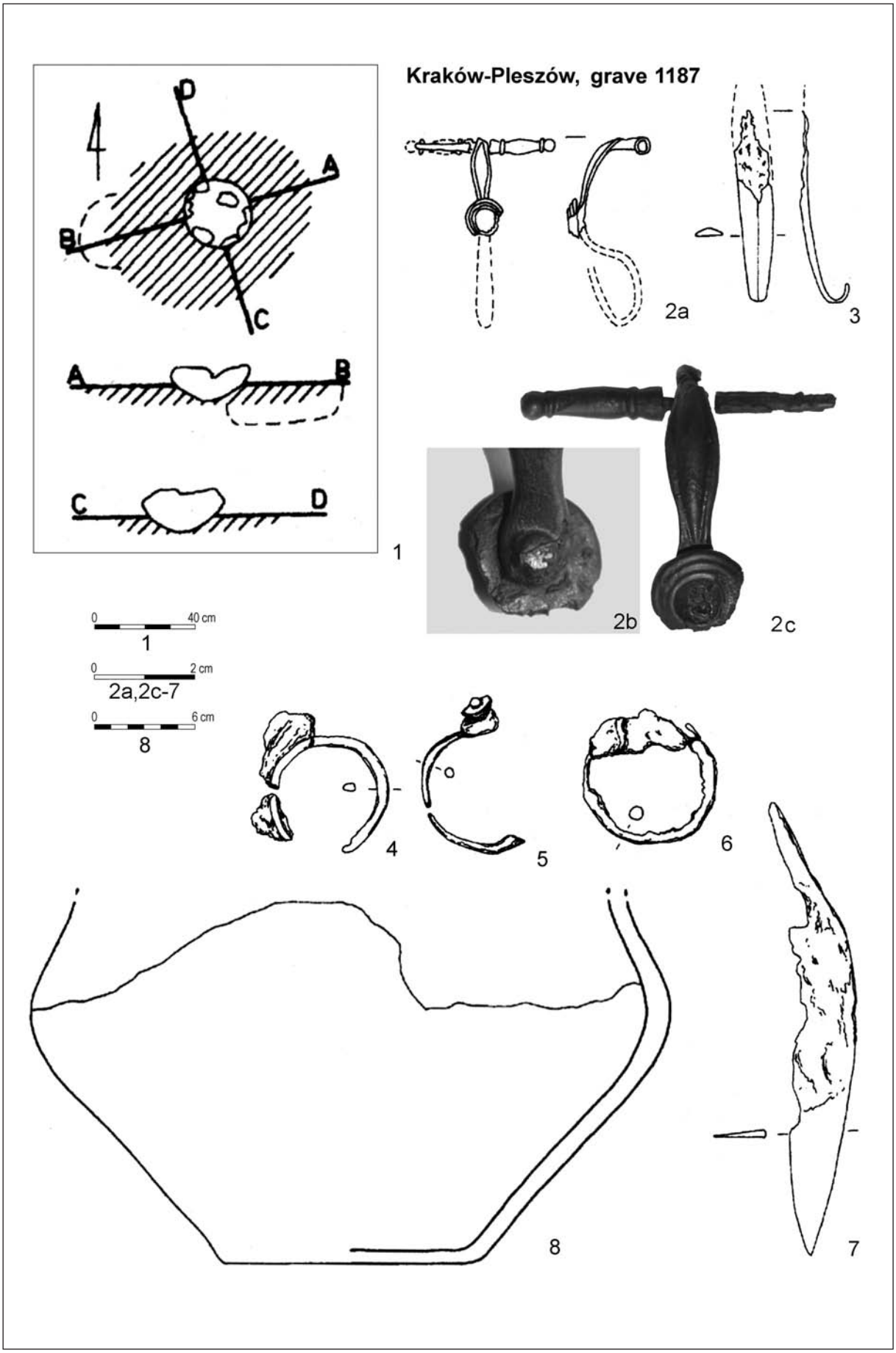

Fig. 3. Kraków-Pleszów, site 17, grave 1187 (after Poleska 2006, photos of 2b and 2c: P. Dulęba).

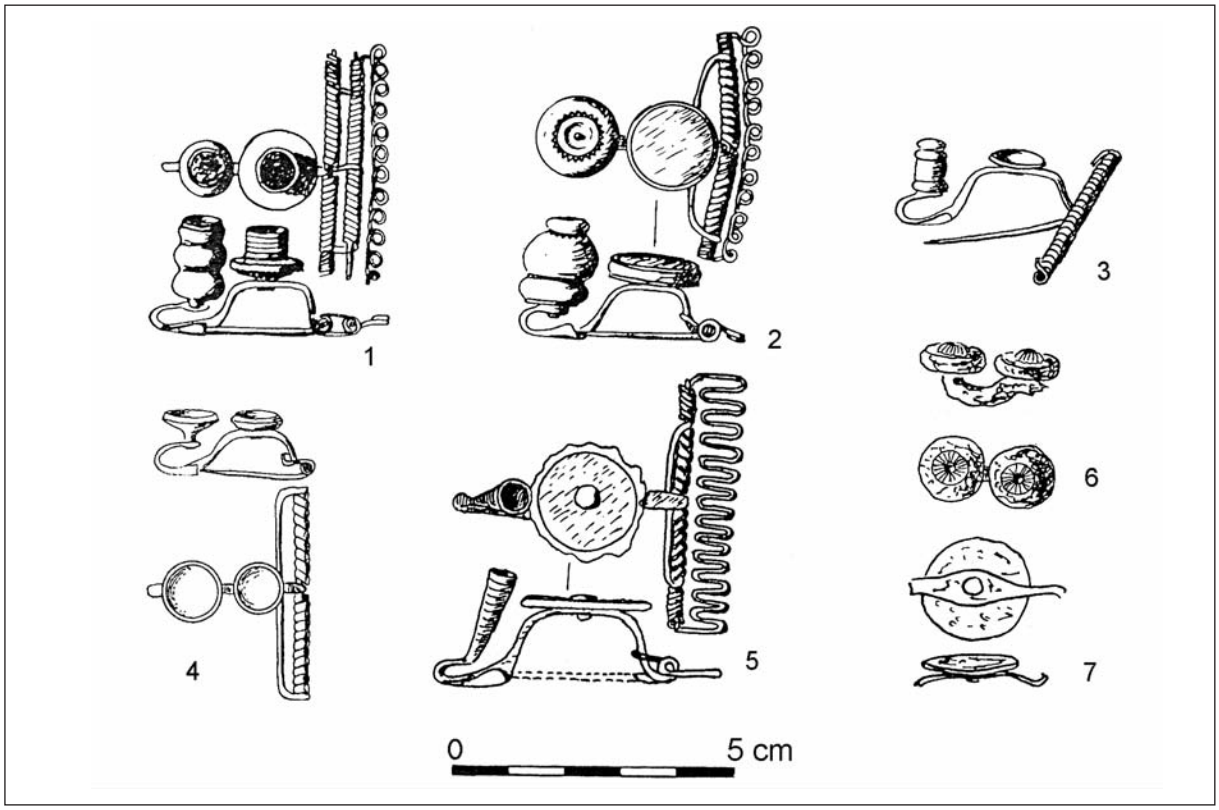

Fig. 4. Late Hallstatt construction fibulae (type dZ3) from the area of eastern France (after Joffroy 1960).

style, therefore the artefact should rather be dated to phase LT A1, when this style developed.

Grave 1187 has yielded a fragment of an iron prong buckle with a triangular section and three iron rings with a diameter of approx. 3.5 cm, which may have been parts of a belt (Fig. 3/3–6). The buckle has been identified as a late specimen, dated to the period corresponding to phases LT B2–C1 in the La Tène Culture.[59] Analogies to prong buckles from the area of the Pomeranian Culture indicate that it is equally probable that the artefact may be associated with the beginning of the Early Pre-Roman period. Prong buckles are forms characteristic of the whole Pre-Roman period. They occur in Pomeranian Culture assemblages, but the form has its origins in the Jastorf Circle, where it appeared at the close of the Hallstatt period and lasted uninterruptedly until the late Pre-Roman period.[60] Simple forms of prong buckles are most characteristic of the Early Pre-Roman period.[61] The specimen from Kraków-Pleszów has been only partly preserved, therefore it is difficult to determine whether it was connected to the above-mentioned iron rings.

The above analysis of artefacts from grave assemblages from the cemetery in Kraków-Pleszów shows that dating this site presents serious problems, but it is probably related to a short period, namely phases Ha D3 – LT A1. What may also indicate a similar chronology of local settlement for the last phase of the Lusatian Culture is an iron spade pin (*Spatenkopfnadel*) found at a settlement near the cemetery (Fig. 5/4). The dating is additionally confirmed by a new find of a fibula with a decorative foot of the F2 type, Wicina variant, in the cultural layer at the nearby Site 2 in Modlniczka, Kraków District.[62] This specimen, made of bronze and iron (spring pivot), has a slim bow and a conical boss with a hollow (Fig. 5/6). One of the fibulae found at the stronghold in Wicina has an identical form.[63] Analogous artefacts analysed below can be dated to phase Ha D3 (see Chapter 3.4.).

Another source of information useful for examining the end phase of the Lusatian Culture is a bi-ritual cemetery at Site 3 in Stradów, Kazimierza Wielka District.[64] The site included as many as 70 inhumation and cremation burials, which in several cases were arranged stratigraphically – inhumation graves were situated under cremation graves.[65] Unfortunately, a full analysis of this interesting sepulchral complex is impossible due to the poor state of documentation of these excavations. In the cremation grave 61,

[59] Woźniak, Poleska 1999, 382.

[60] Kostrzewski 1923, 47–54. – Wołągiewicz 1979, 44 and Fig. 14, List 11b.

[61] Keiling 1969, 40. – Keiling 1979, 21.

[62] Byrska-Fudali, Przybyła 2012, 522 and Fig. 16/7.

[63] Gedl 1985, Fig. 8/1.

[64] Rogozińska-Goszczyńska 1964. – Błasiak 1993.

[65] Rogozińska-Goszczyńska 1964, 384.

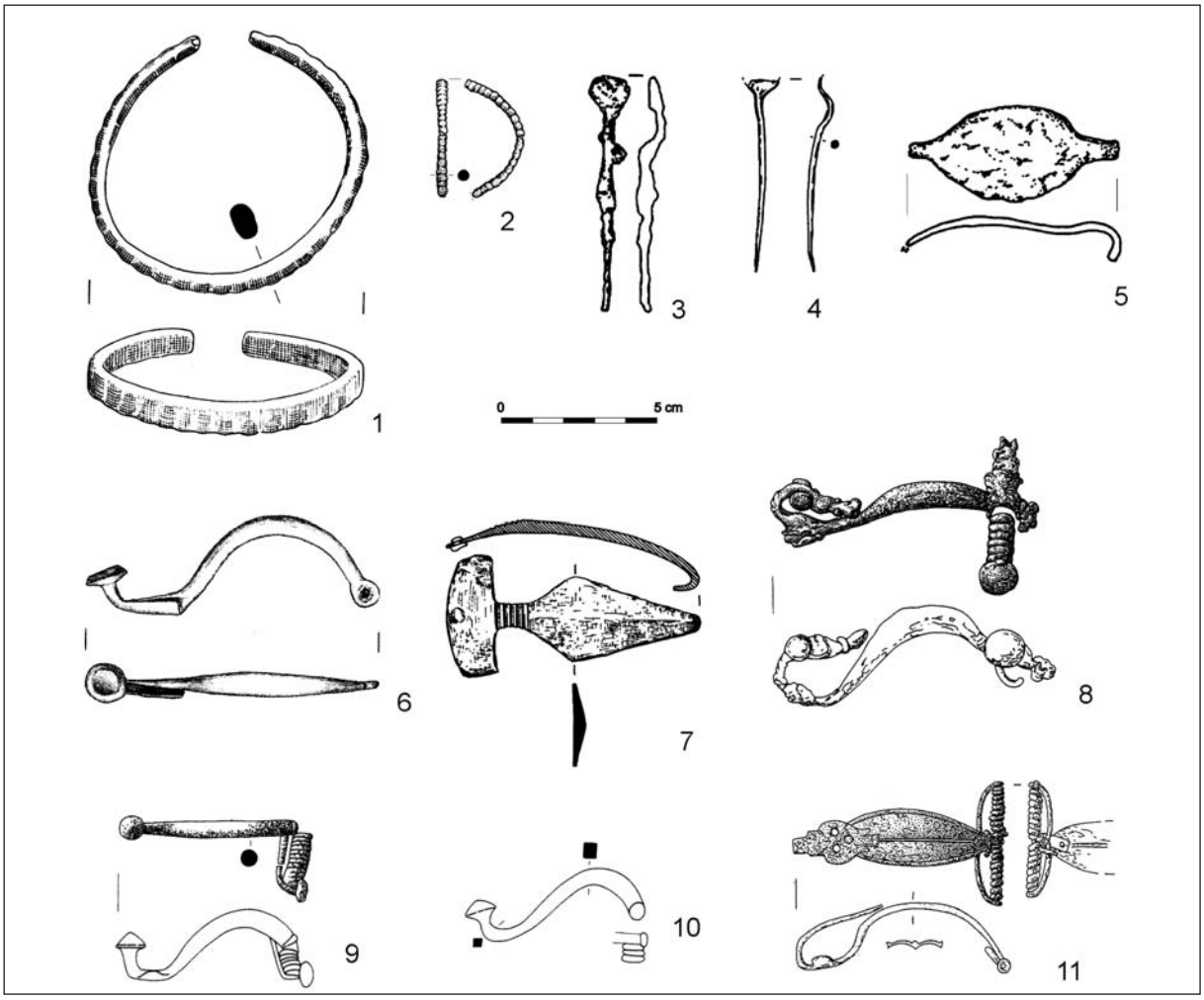

Fig. 5. Metal artefacts from the end of the Hallstatt and the beginning of the Early Pre-Roman period. – 1. Kraków-Tyniec, bronze bracelet (after Woźniak, Zoll-Adamikowa 1971). – 2. Podłęże, fragment of a bronze bracelet (after Dzięgielewski 2010). – 3. Pełczyska, iron pin (after Woźniak, Poleska 1999). – 4. Kraków-Pleszów, iron pin (after Woźniak, Poleska 1999). – 5. Strumiany, iron buckle (after Reguła 1980). – 6. Modlniczka, bimetalic fibula (after Byrska-Fudali, Przybyła 2012). – 7. Korytnia, iron buckle (after Marciniak 1963). – 8–10. Janina, iron fibulae (after Gedl 2004). – 11. Ławy, iron fibula (after Gedl 2004).

a triangular iron buckle[66] has been found together with two iron pins with a bent neck and a rolled head (*Rollenkopfnadel*), an iron knife with an arched spine, an iron needle, a bronze bead and two spindle whorls. Unfortunately, three vessels found in this burial have been lost, which makes it harder to determine whether the burial should be associated with the Lusatian or the Pomeranian Culture. The iron buckle from Stradów has close analogies in Pomeranian Culture assemblages. A similar artefact has been found in grave 1 in Wrocław-Pracze Odrzańskie together with two iron pins, one with a bent neck and a rolled head and the other with a riveted disc (*Scheibennadel*), as well as an urn.[67] Buckles of this type, triangular and fitted with a fastening with a rivet, are characteristic of LT A. The above-mentioned construction detail is also associated with openwork buckles,[68] which are artefacts typical of the mature Early La Tène style and occur mainly in northern Alpine areas.[69] A type of triangular buckle similar to the specimen from Stradów is associated with horizon 10 of graves in the area of Upper Palatinate.[70] Triangular buckles are known from the area of the Jastorf Culture, where they are characteristic of phases Ic and IIa, corresponding to phases LT A2 – LT B2 of the La Tène Culture.[71] These artefacts do not have rivets, but they have typical hook-shaped fastenings on both sides.

Another site that has yielded metal artefacts that are good chronology indicators is a cemetery in

[66] Rogozińska-Goszczyńska 1964, Fig. 2.

[67] Petersen 1929a, 213 and Fig. 13, Pl. XII/7.

[68] E.g. a buckle from Gogolewo, Tczew District, cf. Kostrzewski 1923, Fig. 1.

[69] Parzinger 1988, Pl. 150/1.

[70] Parzinger 1988, Pl. 114/93.

[71] Keiling 1979, 21.

Gosławice, Tarnów District.[72] In grave 1 at this site, a bronze fibula of type F2 (*Fußzierfibel*) has been found, representing the characteristic Wymysłowo variant.[73] Stylistically, these fibulae originated from the most popular F2 type, namely the Wicina variant, which has a slim, sometimes faceted bow and a conical boss decorating the foot. The Wymysłowo variant has an additional element imitating a foot, symmetrically fixed to the reverse side of the bow, right next to the spring.[74] Fibulae of the Wymysłowo variant are a local form, occurring in eastern Greater Poland, most probably related to some local workshop.[75] The specimen from Gosławice is the only item found beyond the compact area of occurrence of fibulae of the Wymysłowo variant, which clearly confirms the fact that the Lusatian Culture population from western Lesser Poland had relations with the western zone of the Pomeranian Culture. Three vessels from the analysed burial: two egg-shaped pots and a scoop have been poorly preserved and are not very characteristic in form, but vessels found in the other burials at this site are forms characteristic of the Upper Silesian-Lesser Polish group of the Lusatian Culture.[76]

The latest horizon of finds related to the Lusatian Culture clearly indicates a serious settlement decline at the close of the Hallstatt period and the beginning of the Pre-Roman period.[77] Many analogies link western Lesser Poland to Upper Silesia, the Głubczyce Upland in particular. In both regions, the Lusatian Culture settlement lasted until the Early Pre-Roman period, when first imports of the nascent La Tène Culture (metal artefacts and workshop pottery) came there. The Sub-Kraków group of the Late Lusatian Culture was additionally affected by strong influences of the Pomeranian Culture, which was clearly due to the proximity of sites of both units. The latest Lusatian Culture materials can be dated to phase LT A1 (fibulae of type F2, Kietrz variant, from Kraków-Pleszów and Żywiec-Grojec; a fibula of type F2, Wymysłowo variant, from Gosławice; a fibula of type dZ3 from Kraków-Pleszów). So far, there has been no evidence of Lusatian assemblages lasting until phase LT A2, though it is possible, as suggested by the already mentioned find of a triangular buckle from Stradów. It should be emphasized once more that the small number of finds that can be dated reliably makes it impossible to determine accurately the chronological limits of these barely perceptible phenomena in the context of the whole area of western Lesser Poland.

THE POMERANIAN CULTURE IN WESTERN LESSER POLAND

In the literature, an emphasis is usually placed on the genetic relationship between the Lusatian and Pomeranian cultures. The latter unit is often presented as an element of the evolution of the Lusatian Culture resulting from population migration or the "expansion of new ideas," visible in the material culture. The first of the above-mentioned theories is much better justified.[78] It is difficult to determine whether there were cultural connections between the Tarnobrzeg Group and the Pomeranian Culture in Lesser Poland, but some researchers suggest the possibility that both units coexisted temporally.[79] Until recently, research on the Pomeranian Culture was considerably hampered by the underdeveloped periodization system. The reason for this is the nature of finds from this culture, which very rarely include items that are good chronology indicators, co-occurring as closed finds. Only the first attempts at linking Pomeranian Culture materials with the chronological system of the La Tène and Jastorf cultures made it possible to study the above-mentioned question in detail. The research was based on recording and analysing the few imports from the Celtic world and slightly more frequent local artefacts, which often have a form related to the style common in the Jastorf Culture.

The prevailing artefacts from sites related to the Pomeranian Culture in western Lesser Poland are sepulchral materials and stray finds, most probably remains of damaged graves. Only a few sites include traces of archaeologically confirmed settlements with recorded Pomeranian Culture features: Aleksandrów and Kobylniki, Busko-Zdrój District; Dalewice, Proszowice District; Podłęże, Wieliczka District; Jakuszowice and Zagórzyce, Kazimierza Wielka District.[80] This list may be supplemented with a small number of less certain sites recorded during field surveys, which may be interpreted as remains of settlements. In practice, it is very difficult to distinguish Pomeranian Culture settlement materials from

[72] During the research, it was assumed incorrectly that the site was situated within the area of the nearby village of Komorowo and, as a result, this name occurs in the literature, cf. Okoński, Szpunar 2002, 149 and Fig. 42.

[73] Parzinger 1993, 516. – Gedl 2004, 115–118.

[74] Gedl 2004, Pls. 60/334A–338 and 61/340–344.

[75] In the indicated work, brooches of the Wymysłowo variant are referred to as "brooches of Type Wróblewo", cf. Kaczmarek 2005, Fig. 7.

[76] Information provided by A. Szpunar, the collection of the Regional Museum in Tarnów.

[77] Rydzewski 1997.

[78] Dzięgielewski 2010a.

[79] Matoga 1989, 278–279.

[80] Several sites which have been considered Pomeranian Culture settlements in the literature are in fact settlement traces difficult to identify, probably related to the Lusatian Culture. They include especially the finds from Kraków-Bronowice Małe, Lelowice, Piekary, Wierzchowie, Kobylany, Biskupice, Zakrzów, cf. Nosek 1946, as well as artefacts difficult to identify culturally from Aleksandrowice (Złota Commune), Iwanowice, Podgaje, Kazimierza Wielka, Rachwałowice, Pielgrzymowice and Ratajów, cf. Marciniak 1973. The same interpretation should also be related to a small number of features from research at Site 76 in Kraków-Branice, cf. Poleska 2006, 32.

materials from the end phase of the Lusatian Culture uniquely on the basis of partly preserved ceramic artefacts from field surveys. It is largely due to the genetic relationship between these cultures and to the typical Late Hallstatt stylistic trends in pottery, which dominated at that time in large areas of central and northern Europe. In view of the above-mentioned reservations, this work takes into consideration sites known from field surveys only if they have yielded metal artefacts or forms of pottery exclusively characteristic of the Pomeranian Culture. This special state of research, characterized by a clear predominance of sepulchral finds, is analogous to the situation observed in other regions inhabited by Pomeranian Culture populations.[81]

Pomeranian Culture sites in western Lesser Poland occur in two large clusters: one covering Sandomierz Upland and the other covering the area of the basins of the Nidzica, Nida and Wschodnia rivers.[82] The latter will be discussed in more detail as it coincides with what was later an area of La Tène settlement. To the south of the Nidzica, isolated Pomeranian Culture sites are recorded sporadically

[81] Czopek 1995.

[82] Marciniak 1973, Fig. 1. – Dzięgielewski 2010a, Fig. 6B.

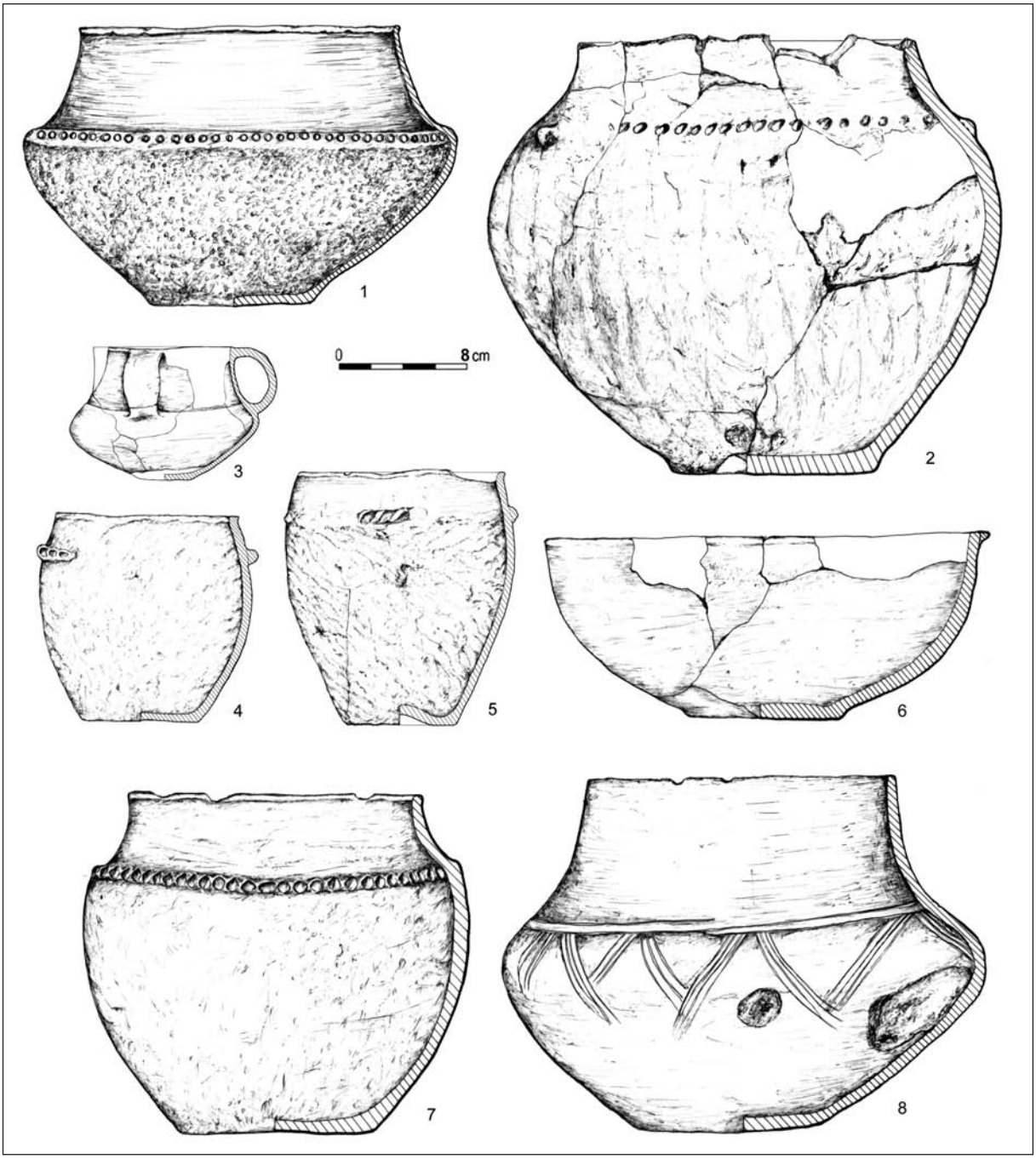

Fig. 6. Vessels from the Pomeranian Culture cemetery in Zagość (drawing: T. Wenhrynowicz).

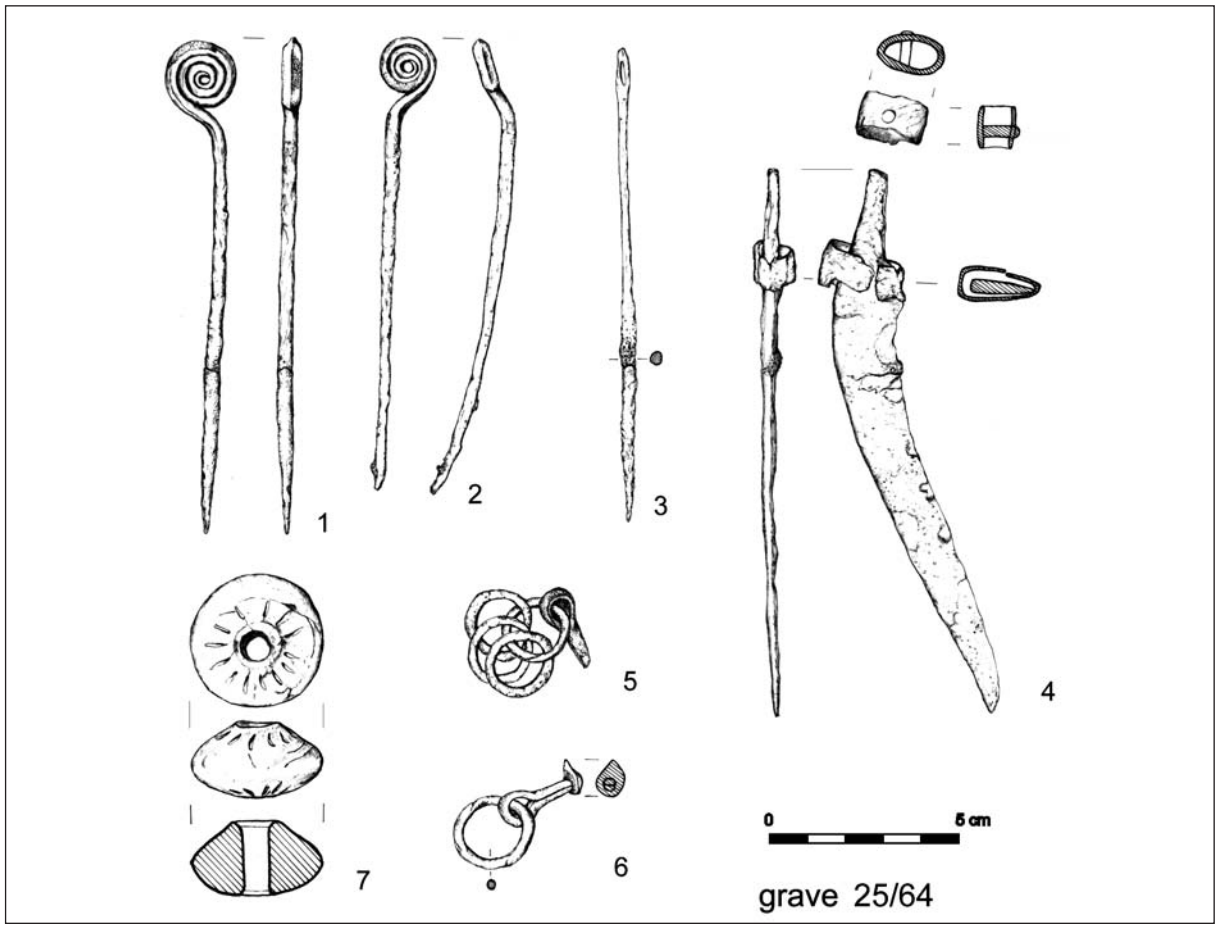

Fig. 7. Artefacts from grave 25 in Zagość (drawing: T. Wenhrynowicz).

(see Fig. 1). Across the Vistula River, apart from the find from Strumiany, Wieliczka District, which is difficult to classify, Pomeranian Culture materials have been recorded at Site 17 in Podłęże.[83] Pomeranian Culture artefacts in the form of pottery have also been found at the neighbouring Site 7 in Zakrzowiec.[84] The main concentration of discoveries, mostly of isolated burials and small cemeteries, is situated on both sides of the Nida River valley. The Pomeranian Culture population seems to have had some special farming model as it clearly preferred podzols and avoided heavy, very fertile soils on loess substratum. It is puzzling that it is on the Miechów upland and Proszowice plateau, areas so favourable to settlement, that Pomeranian Culture settlements occur rarely.

In the discussed area, most finds come from isolated burials or small cemeteries. In Ponidzie, the largest Pomeranian Culture sepulchral complex is the cemetery in Korytnica, Jędrzejów District, Site 1, where at least 68 graves were explored during the excavations of J. Marciniak in the 1960s. Approx. 75–80 other burials were uncovered by a famous amateur archaeologist, Father Stanisław Skurczyński in the interwar period.[85] Other large cemeteries have been recorded in Zagość, Pińczów District, where 25 graves have been found (Fig. 6–7),[86] Janina, Busko-Zdrój District, with 19 known graves[87] and Bocheniec, Jędrzejów District, with 12 graves explored during excavations and a lot of incidental finds.[88] In the neighbouring area of Sandomierz Upland, the largest sepulchral complex is the cemetery in Błonie, Sandomierz District, with 7 Tarnobrzeg Group burials, 30 Pomeranian graves and 4 graves with indistinctive goods that might be attributed to both taxonomic units.[89]

The prevalent burial forms in the Pomeranian Culture are cloche and urn graves as well as less common pit, cist and urn graves with stone pavements or linings. The funeral rite of the Pomeranian Culture has already been the subject of many studies,[90] which, however, have not yielded the expected results. An important conclusion that can be drawn from these

[83] Dzięgielewski 2010. – Dzięgielewski, Szczerba, Chudzińska 2011.

[84] Jarosz, Rodak 2006.

[85] Arct, Matoga 1995, 172–173.

[86] Excavations carried out by J. Gromnicki in the years 1962–1964, 1974. Now kept in the collection of the Regional Museum in Pińczów.

[87] Nosek 1946, 94–99.

[88] Konieczny 1988, 99–118.

[89] Mycielska, Woźniak 1988. – Mycielska, Woźniak 1990.

[90] Cf. Malinowski 1969.

works is the fact that there was a great variety of burial forms co-occurring within the same cemeteries. It is impossible to determine accurately which burial types were the most characteristic of the given region or period. Only a cursory analysis indicates that usually the graves with artefacts that are good chronology indicators are cloche and urn graves, but there are also some exceptions. At the cemetery in Korytnica, cloche graves constituted 40 % of all burials.[91]

The most important thing from the perspective of research on settlements of the La Tène period is to identify and outline the last stage of the Pomeranian Culture and its possible relations with the Celtic world. To this end, it may be useful to analyse metal finds from Pomeranian Culture assemblages and sites as well as settlement pottery assemblages, which may be dated a bit more precisely than in the case of an overwhelming number of this kind of finds.

Fibulae of the Kowalowice type

Two specimens of fibulae of the Kowalowice type are known from western Lesser Poland. One of them was found at a damaged cemetery in Ławy, Kazimierza Wielka District (Fig. 5/11). The other specimen comes from feature 962 in Jakuszowice (Fig. 10/18). Fibulae of the Kowalowice type (*Kaulwitzer Fibeln*) are the main forms of the beginning of the Early Pre-Roman period. In the German literature,[92] they are also referred to as Altmark fibulae (*Altmärkischer Fibeln*) or band fibulae (*Bandfibeln*). These fibulae occur in the western part of the Pomeranian Culture and in the Jastorf Culture.[93] Single specimens of this type of fibula are also known from the area of the La Tène Culture. Four artefacts of this kind have been found in the area of Lake Neusiedl (Austrian Burgenland and the area around Sopron): a unique bronze specimen from Sopron-Bécsidomb, two iron items from Sopron-Krautaker (grave 20, house 193) and another iron artefact from the cemetery in Loretto.[94] An iron fibula of the Kowalowice type has also been found in a semi-dugout of the La Tène period at the settlement in Vyškov, Moravia.[95] The specimen from Vyškov differs in one detail from classic fibulae of the Kowalowice type, namely its foot is very elongated, goes over the bow and is secured to the spring. This structural detail is very characteristic of extremely rare Early La Tène zoomorphic fibulae, representing the so-called Dorna variant.[96] The fibula from Vyškov was found together with typical La Tène pottery, characteristic of the earliest horizon of Moravian settlements (bowls of the Braubach type, situla-like pots with distinct neck parts, bowls with the so-called *omphalos*). A fibula of the Kowalowice type is also known from grave 42/1 at the large cemetery in Dürrnberg bei Hallein.[97] Fibulae of the Kowalowice type have been divided into three types, corresponding to distinct zones where their representatives occur. Type I occurs only in the area of Schleswig-Holstein and in the area of the basin of the Middle Elbe; type II occurs in the area of the basin of the Middle Elbe and the Saale, in Brandenburg and in small numbers in Lower Silesia, and type III occurs mainly in Lower Silesia, southern Greater Poland and in small numbers in Cuiavia and Pomerania as well as in the area of the basin of the Middle Elbe.[98]

The fibula of the Kowalowice type from Ławy should unquestionably be classified as type III according to A. Lorentzen, whereas the much worse-preserved specimen from Jakuszowice may probably be classified as type II. A. Lorentzen dates fibulae of the Kowalowice type to a late period, linking them to phases LT B1b–B1c.[99] It is a highly questionable hypothesis. In the literature, it has already been suggested that forms of this type still existed in phase LT B1, an assumption based on analogies in the style of fibulae of the horizon of Duchcov.[100] The vast majority of fibulae occurring in Pomeranian Culture assemblages are fibulae having an openwork foot with a decorative form (type III), the latest ones in terms of style. The unique fibula from Vyškov also has a foot decorated in this way. This type of ornamentation is very characteristic of the Early La Tène style, therefore the fibulae should be dated to phases LT A2–B1a. Such a dating may be indicated by finds of fibulae of the Kowalowice type in the area of the La Tène Culture, especially the specimen (type III) from Dürrnberg bei Hallein, which has been classified as one of the main forms of horizon 10.[101] The appearance of artefacts from the horizon of Duchcov-Münsingen probably ended the production of ornaments in the Early La Tène style. It is indicated by the fact that the spreading of finds of Early La Tène and Duchcov fibulae in the area of the Pomeranian Culture was mutually exclusive.[102]

[91] Arct, Matoga 1995, 174.

[92] Petersen 1929, 100. – Lorentzen 1993, 66–73.

[93] Woźniak 1979, 144. – Woźniak 1995, 202–203 and Fig. 2. – Lorentzen 1993, Fig. 3.

[94] Jerem 1996, Fig. 10/1–4. – A related fibula of the Piekary Wielkie type has been found in nearby Neufeld an der Leitha, cf. Jerem 1996, Fig. 10/5. It is the only specimen of this type found beyond its original zone of occurrence – northwestern Silesia, cf. Woźniak 1995, 203 and Fig. 2.

[95] Information by M. Čižmář, the collection of Ústav archeologické památkové péče in Brno.

[96] Dehn 1966, 145, List 15. – Binding 1993, 197 and Pl. 15/3. – A bronze fibula of the Dorna variant is also known from Otaslavice, okr. Proštějov, Moravia, Dehn 1966, 145. An iron specimen is also known from Płoski, Góra District, Lower Silesia, Woźniak 1995, 209 and Fig. 5g.

[97] Pauli 1978, 122 and Fig. 14/3.

[98] Lorentzen 1993, 68 and Tab. 3, Map 4.

[99] Lorentzen 1993, 69–71 and Fig. 14.

[100] Woźniak 1979, 202.

[101] Parzinger 1988, Pl. 120/76.

[102] Woźniak 1995, Figs. 2–3.

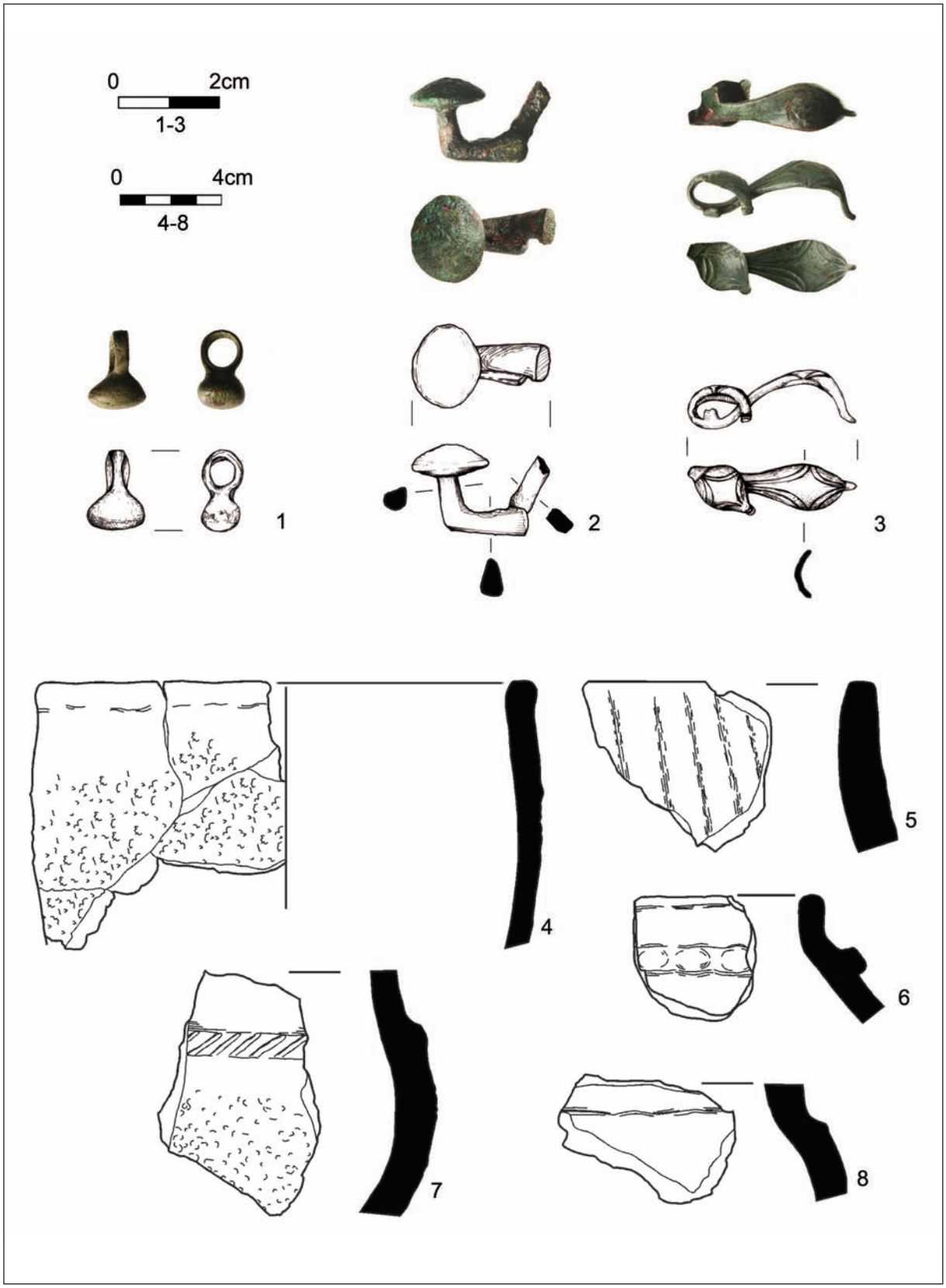

Fig. 8. Finds from the Pomeranian Culture from site 5 in Nieprowice (after Dulęba 2014).

Zoomorphic fibulae

A field survey at the multicultural settlement in Nieprowice on the Nida River has provided an early La Tène bronze fibula unique on a Polish scale,[103] which may be classified as type 23 (*Fibel mit degeneriertem Tierkopf*) according to U. Binding (Fig. 8/3).[104] Fibulae of this type, also referred to in the literature as "Variant Speikern",[105] are derivative forms of *Doppelpaukenfibel* (type dP 4 according to Mansfeld). They were produced from both bronze and iron. The fibulae in question have a two-part structure, a long, profiled, sometimes double spring, a boat-shaped bow and a foot stylised as a bird's head.[106] The foot and the bow of this type of brooch are often decorated with engraved lines forming rhombi, and in some cases the foot is marked with a schematic representation of eyes and a bird's beak. Finds of fibulae of type 23 according to Binding are concentrated mainly in the area of central and southern Germany, but they occur also in the Bohemian Basin, the western part of the Carpathian Basin and in the Balkans. Analogies to the specimen from Nieprowice found in Poland include iron fibulae formerly misinterpreted as the *Doppelpaukenfibel* type.[107] One of them comes from grave 2044 in Kietrz.[108] The other was found in a cloche grave of the Pomeranian Culture at the cemetery in Kornacice, Opatów District.[109] Bronze fibulae of type 23 according to Binding are known from western Slovakia. One specimen has been found in Blatnica and another comes from the fortified upland settlement in Horné Orešany, Trnava District, in the Little Carpathians. At the latter site, traces of intensive metallurgical activity have been recorded.[110] At the beginning of the La Tène period, the settlement was a local craft and trade centre. It is possible that fibulae of type 23 according to Binding may have been produced in Horné Orešany as well.

Another fibula imported from the area of the La Tène Culture is an iron specimen from grave 4 at the cemetery in Janina, Busko-Zdrój District (Fig. 5/8). This fibula with a Late Hallstatt structure, a long, profiled spring and a foot in the form of a bird's (duck's?) head belongs to type 16 according to U. Binding (*Tierkopffibel mit Entenkopf*). Fibulae of this type and of similar types (17–19) occur in large numbers in the western Hallstatt Circle, concentrated mainly in northern Bavaria, Baden-Württemberg, Rhineland and Thuringia.[111] In the Pomeranian Culture, apart from Lesser Poland, fibulae with animal's heads (types 16 and 17 according to Binding) occur only in Silesia.[112] They are artefacts characteristic of the Early La Tène style and their chronology is limited to phase LT A. The fibula from Janina, with the typical Late Hallstatt two-part structure, may be considered one of the older fibulae with animals' heads. Later specimens have a one-part structure and the representation of a bird's head on the foot is very stylized. Examples of such fibulae include specimens from Malerzowice Małe, Grodków District, Pruszowice, Trzebnica District, and Skidniów, Głogów District.[113] The above-mentioned forms should be related to phase LT A2, but in the area of the La Tène Culture, they may have still existed in the pre-Duchcov horizon (LT B1a). Such a dating is suggested for artefacts from Bohemia.[114]

Fibulae of type F2, Kietrz variant

Among the artefacts known from Pomeranian Culture sites, there are also fibulae with a decorative foot of type F2, the Kietrz variant, analysed in the previous chapter. One specimen was found on the surface at the settlement in Zagórzyce, Kazimierza Wielka District;[115] another, only partly preserved, comes from Nieprowice, Pińczów District (Fig. 8/2). A melted and deformed fragment of a fibula with a Late Hallstatt structure, most probably originating from a similar fibula, has been found at the damaged Pomeranian Culture cemetery in Piaseczno, Sandomierz District.[116] Just like the already analysed specimen from Kraków-Pleszów, the above-mentioned artefacts should be dated to phases Ha D3/LT A1 or LT A1.

Fibulae of type F2, the Wicina variant

Fibulae known from western Lesser Poland also include similar iron items with a decorative foot of type F2, the Wicina variant. One fibula of this type was found at Site 2 in Zagórzyce, Kazimierza Wielka District[117] and another two come from grave 18 in Janina, Busko-Zdrój District (Fig. 5/9–10), where they occurred together with an iron pin with a bent neck and a rolled head, an urn and a bowl.[118] Fibulae of the Wicina variant have a narrow, often faceted or incised bow and the knob decorating the foot is conical in

[103] Dulęba 2014, 321–322 and Fig. 11/3.

[104] Binding 1993, 40–41, List 26.

[105] Dehn, Stöllner 1996, 11–15, List 1b.

[106] Binding 1993, Pls. 40/2–6, 8, 10, 12–15; 41 and 42/2–4, 6–7, 9–11. – Dehn, Stöllner 1996, Fig. 9.

[107] Gedl 2004, 132.

[108] Gedl 1985, Pl. III/13.

[109] Florek 1995, Pl. I/5.

[110] Pieta 2007, 297–301. – Pieta 2008, Fig. 2/1.

[111] Binding 1993, Map 6.

[112] Woźniak 1995, Fig. 2.

[113] Binding 1993, Pl. 32/3–5.

[114] Cf. Waldhauser 1987, Fig. 4/32.

[115] Woźniak 2010, 87.

[116] Nosek 1946, Pl. XXII/11.

[117] Woźniak 2010, 86.

[118] Nosek 1946, Pl. XXII/2.

shape.[119] G. Kossack classified them as class A, variant 1–2 and dated them to the end of the 6th century BC.[120] The same chronology was proposed for these artefacts by H. Parzinger.[121] Fibulae of this type are known throughout the western Hallstatt area, but their greatest concentration is at the mouth of the Rhône, near the Gulf of Lion.[122] Fibulae with a decorative foot of the Wicina variety are a bit older than more massive fibulae of the Kietrz variant; therefore they should be associated with horizon 8 according to Parzinger, corresponding to phase Ha D3 in the traditional periodisation system. A question that requires further research is whether there is a chronological difference between bronze and iron specimens.

Cross-Shaped Fibulae (Tłukomy type)

In grave 209A at the cemetery in Błonie, Sandomierz District, a very rare type of a cross-shaped fibula of the Tłukomy variant has been found.[123] The artefact was made of iron sheet in the form of a stylised cross with four (only two preserved) round discs riveted to it, probably decorated with silver plates. The brooch was found together with an iron crosier-shaped pin, one bronze and six glass beads and three vessels, two of them preserved in a form allowing reconstruction.[124] Cross-shaped fibulae are very rare and associated only with Greater Poland.[125] The fibula from Błonie is the only specimen found so far to the southeast. Dating these artefacts is very questionable, because it is based on stylistic similarities only, but most researchers seem to be in favour of associating cross-shaped brooches with the last stage of the Hallstatt period – phase Ha D3.[126] The only analogy from outside Poland relatively close to this type of fibulae is known from grave 816 in Hallstatt,[127] but the burial did not include other items that might indicate its chronological position.

Belt Buckles

Another type of metal parts of clothing found in Pomeranian Culture graves is belt buckles. A rhomboid iron buckle was found as a stray find at the cemetery in Korytnica (Fig. 5/7). The artefact has a slightly bent and roof-shaped profile. It has a rectangular, riveted fastening. Analogous artefacts are known from Pomeranian Culture assemblages, e.g. from Bystrzyca, Oława District, and Czekanów, Ostrów Wielkopolski District.[128] A similar buckle is also known from a Jastorf Culture site in Nitzhan, Kr. Rathenow, where it occurred together with artefacts characteristic of the end of the Hallstatt period.[129] Rhomboid buckles in Jastorf Culture grave assemblages co-occur with fibulae of type dP 4 according to Mansfeld, dated to the end of the Hallstatt period (Ha D3).[130] The same chronological position can be associated with analogies from Silesia and Greater Poland, where a lot of well-dated Pomeranian Culture assemblages from this period have been found.

Among the artefacts that may probably be associated with Pomeranian Culture materials, there is a wide iron buckle made of sheet iron flattened to the shape of a lens, a stray find discovered at the settlement in Strumiany, Site 4 (Fig. 5/5). An analogous artefact was found in feature 2/91 (La Tène Culture semi-dugout) at the settlement in Kraków-Wyciąże, Site 5.[131] Buckles of this type are known from the area of the Pomeranian Culture. An analogous artefact was found in a cist grave in Nadziejowo, Środa Wielkopolska District.[132] Artefacts of this type are also known from the Jastorf Culture, e.g. from Oderberg, Kr. Eberswalde, Brandenburg.[133] They are dated broadly to phases Ib–IIa, corresponding approximately to the whole Early Pre-Roman period.[134] Determining the cultural origins of the site in Strumiany, explored only to a small extent, is very difficult. Pottery from the discussed period that has been found there is similar in many respects to materials from the last phase of the Lusatian Culture.

Circular Ornaments

During the excavations at the multicultural Site 17 in Podłęże, Wieliczka District, a fragment of a bronze bracelet was found, with a simple finish, decorated with a row of grooves.[135] The artefact was found in a secondary deposit in a feature dated to the Roman period. The way this bracelet is formed corresponds to type 6 in the classification of circular ornaments from the deposit of Duchcov.[136] What makes this bracelet exceptional among the known La Tène Culture assemblages is the thickness of the wire, which is only 3–4 mm (Fig. 5/2). It is a form

[119] Gedl 2004, Pl. 59/308–320.

[120] Kossack 1988, 120.

[121] Parzinger 1993, 516.

[122] Dehn, Stöllner 1996, Fig. 17.

[123] Mycielska, Woźniak 1988, Pl. 178C/1.

[124] Mycielska, Woźniak 1988, 101, 301 and Pl. 178C.

[125] Gedl 1993, Fig. 7. – The most recent find of an iron cross-shaped fibula comes from Grave 121 at the cemetery of the Górzyce Group of the Lusatian Culture in Sękowiec, Krosno District, see Lewczuk 2004, Pl. XXX/9.

[126] Gedl 1993, 160. – Gedl 2004, 136.

[127] Gedl 1993, Fig. 8.

[128] Kostrzewski 1923, 50–51 and Figs. 12–13.

[129] Seyer 1982, Pl. 2/2.

[130] Müller 1985, 84.

[131] Woźniak, Poleska 1999, 383 and Fig. 3g.

[132] Kostrzewski 1923, Fig. 22.

[133] Seyer 1982, Pl. 27/28.

[134] Keiling 1969, 40 and Pl. 37g.

[135] Dzięgielewski 2010, 163 and Fig. 10. – Dzięgielewski, Szczerba, Chudzińska 2011, 335–336.

[136] Cf. Kruta 1971, Pl. 25/6.

of a very simple ornament, which is probably why it has a long chronology. Analogous forms are known from the area of Slovakia, Rhineland and the Upper Palatinate, where they occur as early as in burials of horizons 9 and 10, generally associated with phase LT A and stage LT B1a.[137] This type of ornament mainly occurs in assemblages from LT B1[138] and some specimens can still be found at the beginning of phase LT B2.[139] The bracelet from Podłęże is not a good chronology indicator. If it is correct to link it to the Pomeranian Culture settlement, it should probably be associated with the initial period of using this type of ornament.

Pins

Pins are the most common metal artefacts in Pomeranian Culture assemblages. Unfortunately, only certain types of them are associated with a specific chronology. Most artefacts of this kind are forms occurring from the beginning of the Iron Age to the end of the Early Pre-Roman period. Forms that are rare among the finds from the Pomeranian Culture are spade pins (*Spatenkopfnadel*). Apart from the already mentioned specimen from Kraków-Pleszów (see Chapter 2), a pin of this type was a part of the Pomeranian Culture grave goods found in Bogucice, Pińczów District.[140] Spade pins occur in the Pomeranian Culture, in its western part, but they are also very characteristic of the Jastorf Culture, where they are dated to the beginning of the Early Pre-Roman period.[141]

Other equally rare forms are iron disc pins (*Scheibenkopfnadeln*) with a disc, often decorated with silver or bronze plate, riveted to the head. One specimen of such a pin has been found at the settlement in Pełczyska, Pińczów District (Fig. 5/3). Another comes from grave 4 in Janina, Busko-Zdrój District[142] and yet another was found in grave 166 at the cemetery in Korytnica.[143] In the Jastorf Circle, both spade and disc pins occur mainly in the later stages of the Early Pre-Roman period.[144] In the grave from Janina, the disc pin was found together with an imported fibula with an animal's head, which may indicate that in the Pomeranian Culture, these artefacts should be dated to the period corresponding to phase LT A. Such a chronology may also be indicated by a pin from Wioska, Góra District, Lower Silesia, found in a damaged cist grave together with a fibula of the Kowalowice type.[145]

The most popular pins are iron pins with a bent neck and a rolled head (*Rollenkopfnadel*). Specimens of this type are known from western Lesser Poland, from a site in Bocheniec, Jędrzejów District,[146] Bogucice, Pińczów District,[147] graves 32 and 166 in Korytnica, Jędrzejów District,[148] grave 18 in Janina, Busko-Zdrój District,[149] and grave 61 in Stradów, Kazimierza Wielka District.[150] Pins with a bent neck and a rolled head are artefacts with a long chronology. They have been found in assemblages dated to almost all development phases of the Pomeranian Culture.[151] In the area of the Jastorf culture, they were used from the late Bronze Age to the end of the Early Pre-Roman period, but at the large cemetery in Glövzin, western Mecklenburg, pins of this type occurred mainly in phases Ib and Ic, which may be correlated with phases LTA – LTB1a of the La Tène Culture.[152]

Two almost identical pins made of iron were found in grave 25/64 at the cemetery in Zagość, Pińczów District. Both artefacts have been fully preserved. They have a head rolled into a spiral (Fig. 7/1–2). An analogous pair of identically formed iron pins were found in grave 2051 at the cemetery in Kietrz. This burial is related to the latest horizon of the functioning of the Lusatian Culture cemetery, which may be generally associated with LT A, although forms of this type are also known from the Hallstatt period.[153]

In grave 8 in Błonie, Sandomierz District, an iron pin has been found with a decorative bronze head ending in the form of the so-called *tutulus*.[154] The partly preserved shank of the pin was probably S-shaped. An analogous artefact is known from a cist grave in Niemierzyce, Grodzisk Wielkopolski District, Greater Poland, where it was found together with two similar pins made entirely from iron and a bronze fibula of type F2, Kietrz variant.[155] At the same cemetery, in grave 209A, an iron crosier-shaped pin was found.[156] This artefact, unique in the Pomeranian Culture, has analogies in the area of Baltic cultures and the area broadly understood as Eastern Europe.[157]

A totally unique artefact without close analogies in the area of the Pomeranian Culture is an atypical pin,

[137] Parzinger 1988, 34, 78, 95 and Pls. 41/22, 99/106, 114/85.

[138] Waldhauser 1987, 93, 143 and Pls. 9/8, 28/6, Fig. 4/46. – Valentová 1993, Fig. 5/2, 13.

[139] Horváth 1987, Pl. XV/1–3. – Waldhauser 1987, 116–117 and Pls. 19/12, 43/2. – Waldhauser 2001, 307, 439.

[140] Nosek 1946, 70 and Pl. XXII/15.

[141] Keiling 1969, 48. – Wołągiewicz 1979, Fig. 14, List 11d.

[142] Nosek 1946, Pl. XXII/9.

[143] Konieczny 1988, Pl. LXX/2.

[144] Keiling 1969, 48.

[145] Tackenberg 1922, 7 and Figs. 3, 4.

[146] Konieczny 1988, Pl. VI/5.

[147] Konieczny 1988, 118–119 and Pl. XXXVIII/2.

[148] Marciniak 1963, Fig. 3/3. – Konieczny 1988, Pl. LXX/3.

[149] Nosek 1946, Pl. XXII/2.

[150] Błasiak 1994.

[151] Czopek 1992, 63.

[152] Keiling 1969, 19, 47.

[153] Gedl 1985, 30, 56 and Pl. V/4–5.

[154] Mycielska, Woźniak 1988, Pl. 4C/2.

[155] Dobrogowski 1939.

[156] Mycielska, Woźniak 1988, Pl. 178C/2.

[157] Woźniak 1993, 375.

the upper part of which imitates the bow and spring of fibulae of the Kowalowice type, found at a Pomeranian Culture settlement in Chroberz, Pińczów District (Fig. 9/11). The head of this pin was heavily flattened and, as a result, it imitates a fibula bow. This element is decorated with three vertical, grooved ribs, which also has analogies among the ornaments of fibulae of the Kowalowice type.[158] Pins with a wide head formed in a similar way (the so-called *Kropfnadeln* group) are characteristic of Gotland, where they are known e.g. from the southern cemetery in Vallhagar.[159] The heads of the pins from Vallhagar have two forms: a rolled narrow head as in the case of the artefacts called *Rollenkopfnadel* and a flattened spade (*Spatenkopfnadeln*), sometimes with a rivet in the middle. These artefacts have generally been associated with the Early Pre-Roman period.[160] Considering the stylistic similarities, the artefact from Chroberz has been dated to phase LT A2 – LT B1 in an analogous way to fibulae of the Kowalowice type.[161] It is worth mentioning that as the discussed pin is atypical and unique, it probably is not an accurate indicator and its chronology should generally be associated with the Early Pre-Roman period.

Weapons

The custom of burying weapons, which has been observed in the case of Pomeranian Culture graves, is a completely new phenomenon in the area of the basin of the Oder and Vistula rivers, a phenomenon that originated from practices of this kind common in the

[158] Gedl 2004, Pls. 62–64.

[159] Nylen 1955, 449 and Figs. 196–203, 206, 207/1, 209.

[160] Nylen 1955, 449.

[161] Woźniak, Poleska 1999, 381.

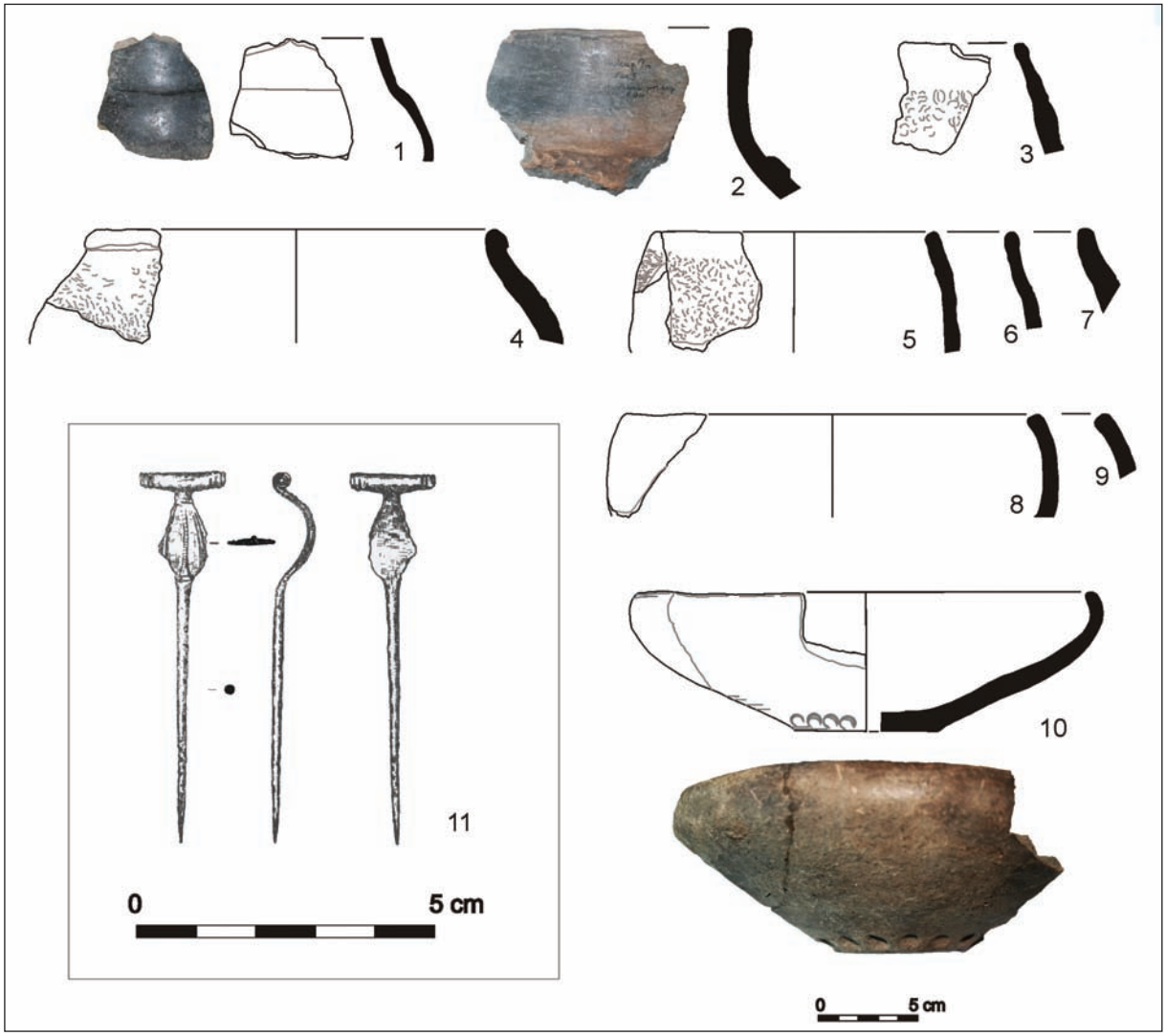

Fig. 9. Finds from the Pomeranian Culture from site 5 in Chroberz (drawings and photos of 1–10: P. Dulęba, 11: after Potocki 1962).

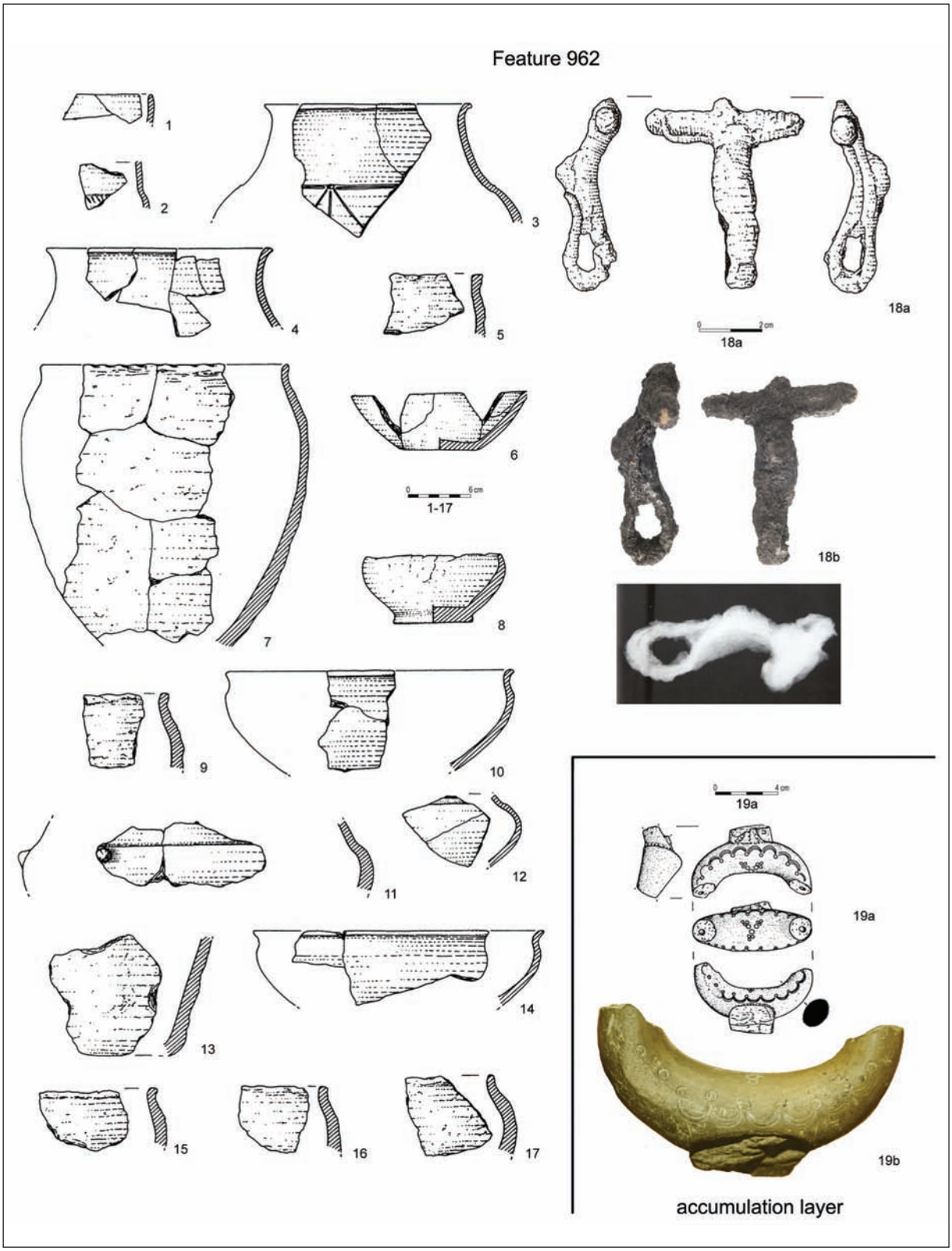

Fig. 10. Finds from the Pomeranian Culture from site 5 in Jakuszowice (after Rodzińska-Nowak 1999, photo of 18b: M. Grygiel, 19a: after Godłowski 1986, photo of 19b: P. Dulęba).

La Tène Culture. Artefacts of this kind from sites in western Lesser Poland include iron spearheads with narrow blades found in Jurków, Busko-Zdrój District and Ławy, Kazimierza Wielka District,[162] Korytnica, Jędrzejów District[163] as well as long, iron single-edged knives[164] found in: Ławy, Kazimierza Wielka District, Janina, Busko-Zdrój District[165] and Zagość, Pińczów District (Fig. 7/4). Unfortunately, the above-mentioned specimens, formally rather homogeneous, are not good chronology indicators. Analogous specimens of spearheads and a long single-edged knife similar in form have been found in grave 8 at the cemetery in Domaniowice, Głogów District.[166]

Other Metal Artefacts

The field survey at Site 5 in Nieprowice also resulted in the discovery of a bronze pear-shaped pendant (Fig. 8/1). There are various interpretations of the function of this type of artefact. Similar pendants have been found as part of face urn metal earrings.[167] Analogous artefacts are known from grave 58 at the Pomeranian Culture cemetery in Nosocice, Lower Silesia.[168] Bronze pendants with a slightly different shape come from a damaged cemetery in Ławy.[169] Artefacts of this type are known from Jastorf Culture graves. They are interpreted as ornaments fixed to belts made of metal and organic material.[170]

An atypical artefact of this kind is a fragment of what is presumably an ornament found in Bogucice, Pińczów District. It has a form of four (originally most probably five – a fragment of the fifth ring has been preserved) iron rings with a diameter of 3 cm, linked in a similar way to net meshes.[171] An analogous item made of four rings connected in the same way and attached to the head of a partly preserved pin (?) was found in grave 25/64 from Zagość (Fig. 7/5). Maybe both artefacts were part of special local ornament forms that lack broader analogies.

Imported Pottery

Among the finds from Pomeranian Culture sites, there are also non-metal artefacts that indicate relations with areas south of the Carpathian Mountains. At the settlement in Jakuszowice, a fragment of a very special vessel has been found – a bowl of the Stupava type (Fig. 10/19). Vessels of this type have a characteristic ornament in the form of stylised bull's horns on the handle, often lavishly decorated with stamps.[172] Finds of bowls of the Stupava type are concentrated in the Middle Danube and are dated to phase LT A2.[173] Among the finds from the cemetery in Błonie, Sandomierz District, there are wheel-thrown vessels produced in workshops that most probably functioned in the area of the Szentes-Vekerzug Culture. Two fully preserved items – a bowl with the rim bent inwards and a cup with a band-like handle – were found in grave 68 and a similar bowl was discovered as a stray find on the surface of the cemetery.[174] All vessel forms from the cemetery in Błonie are very common types in the Szentes-Vekerzug Culture.[175] Pottery of this culture is a very rare find in the area north of the Carpathian Mountains. Apart from the cemetery in Błonie, wheel-thrown vessels of this type are known only from the area of the Tarnobrzeg Group of the Lusatian Culture.[176]

Pottery from Pomeranian Culture Settlements

Although the prevailing artefacts from western Lesser Poland are grave finds, there are also a few settlement sites where Pomeranian Culture items have been discovered. One should mention especially the settlement in Jakuszowice, Kazimierza Wielka District, with relics of a Pomeranian Culture storage pit (Feature 962), where the already mentioned iron fibula of the Kowalowice type was found, which is a really unusual situation.[177] The feature, unfortunately only partly explored, provided a number of pottery items representing two conventionally distinguished technology groups: tableware and kitchenware, the latter clearly prevailing.[178] The presented assemblage includes pear-shaped vessels with a high neck and a bulbous belly (one vessel decorated with engraved lines), cloche-shaped and S-shaped bowls as well as egg-shaped pots (Fig. 10/1–17).

Another settlement feature (Feature 186), which may be interpreted as a relic of a pit house, has been discovered near Jakuszowice, at Site 1 in Zagórzyce, Kazimierza Wielka District.[179] The prevailing vessels from this feature were pots with a band decorated with a set of grooves or finger impressions, cloche-shaped bowls, bowls with a distinct neck decorated with a plastic ornament, and roughened pots with the rim

[162] Nosek 1946, Pls. II/2–3 and V/11.

[163] Marciniak 1963, Fig. 3/1.

[164] Artefacts of this type are sometimes referred to as short swords.

[165] Nosek 1946, Pls. V/15 and XXII/1.

[166] Kołodziejski 1973, Fig. 3b–d.

[167] Andrzejowska 1981, Fig. 1l–p.

[168] Tackenberg 1922, Fig. 13/22.

[169] Nosek 1946, Pl. V/12.

[170] Lorentzen 1993, Pl. 17–18.

[171] Nosek 1946, Pl. XXII/17.

[172] Woźniak 2004, 45–46. – Tankó 2005.

[173] Tankó 2005, 155–157 and Fig. 7.

[174] Mycielska, Woźniak 1988, Pls. 54B/3–4 and 203/11.

[175] Cf. Romsauer 1991.

[176] Cf. Czopek 1993.

[177] Rodzińska-Nowak 1999.

[178] Rodzińska-Nowak 1999, 321 and Figs. 5–7.

[179] Grygiel, Pikulski, Trojan 2009, 201 and Figs. 1–3.

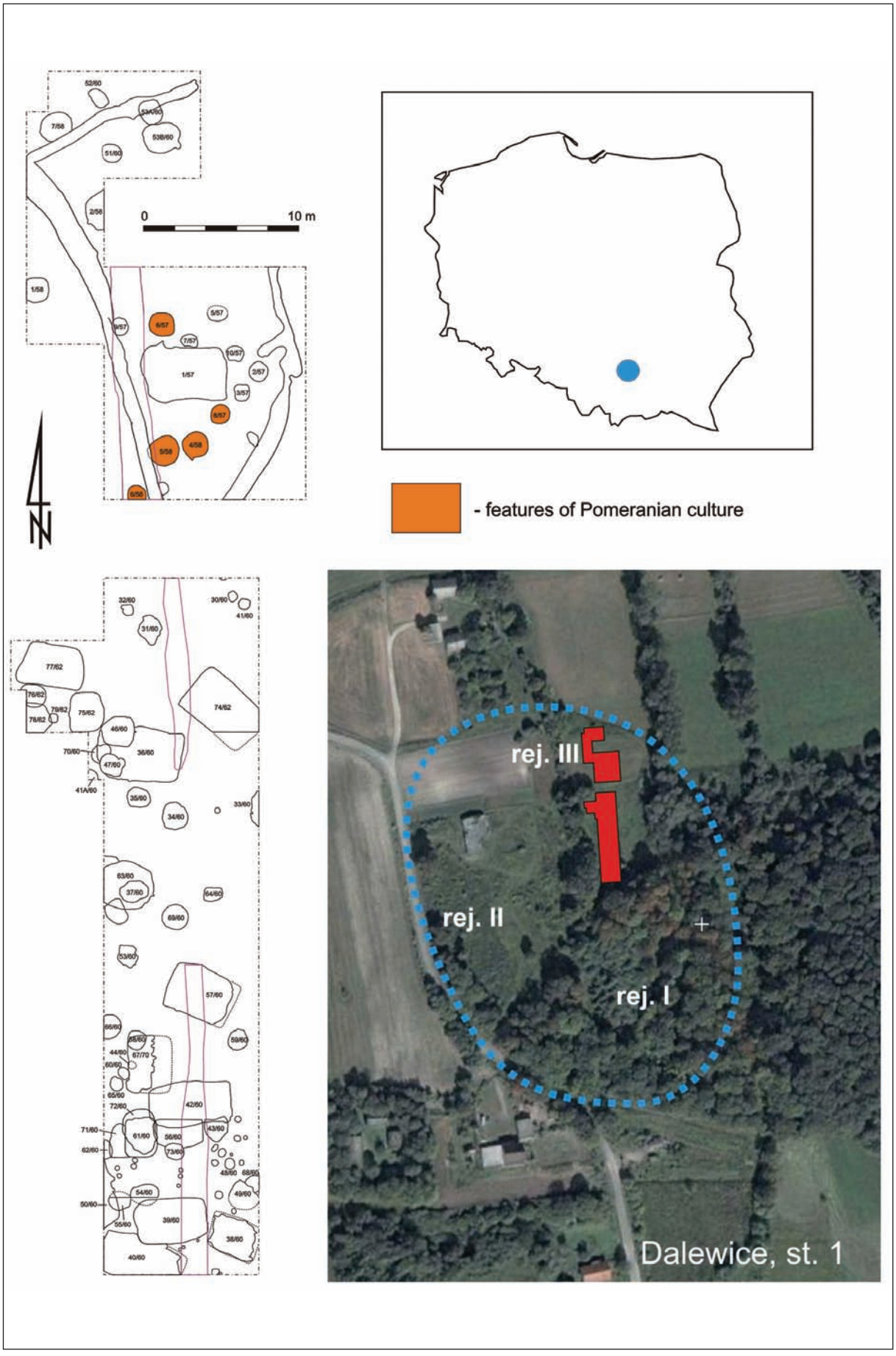

Fig. 11. Plan of the settlement in Dalewice, site 1 (elaborated: P. Dulęba).

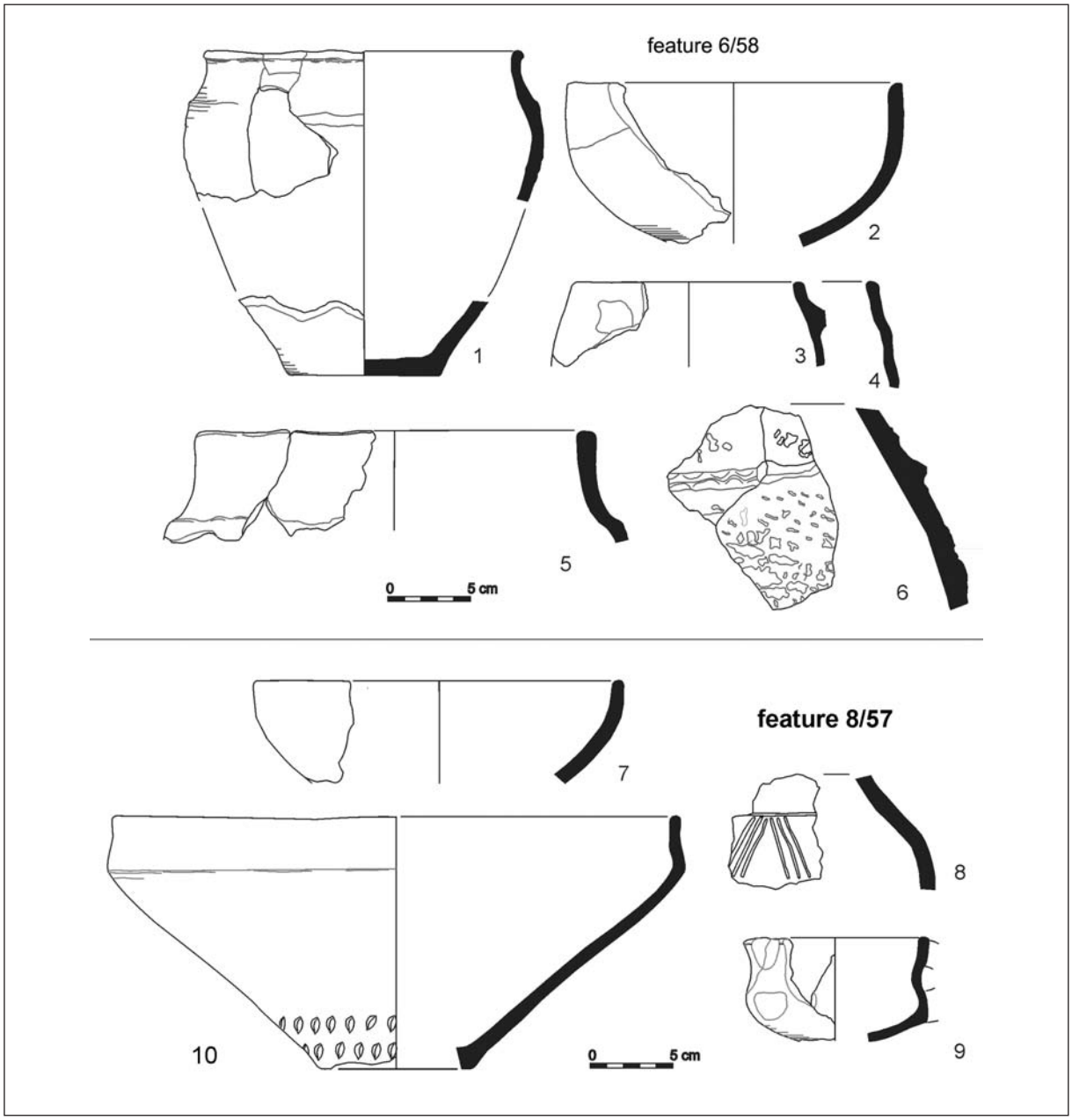

Fig. 12. Dalewice, site 1, pottery (drawing: P. Dulęba).

bent inwards.[180] In feature 186, there was also a fully preserved small inset lid with a drilled hole.[181] It is a typical Pomeranian Culture form, often found in graves, covering urns, including the most characteristic ones, namely face urns.[182] Another item found in the same feature is a pot with an intensively roughened surface, which was decorated with a diagonal plastic band with finger impressions. It is a typical decorative motif found on materials of the Tarnobrzeg Group of the Lusatian Culture.[183] It is worth considering whether the presence of this type of ornamentation proves the existence of bilateral relations between these populations or if it is connected to the origin of the Pomeranian Culture itself in the analysed area.

Another site where settlement features have been recorded is situated in Dalewice, Proszowice District.[184] At this multicultural settlement, at least five Pomeranian Culture storage pits have been found: features 6/57, 8/57, 4/58, 5/58 and 6/58 (Fig. 11). All of them yielded a large number of ceramic vessels. Among the forms occurring at the settlement in

[180] Grygiel, Pikulski, Trojan 2009, Figs. 4/8–9 and 5.

[181] Grygiel, Pikulski, Trojan 2009, Fig. 4/1.

[182] Kołodziejski 1973, Figs. 3a and 4a, g–j.

[183] Matoga 1989, Fig. 1f, g, i.

[184] Excavations carried out by J. Gromnicki (1957–1962), collection of the Institute of Archaeology and Ethnology of the Polish Academy of Sciences in Kraków.

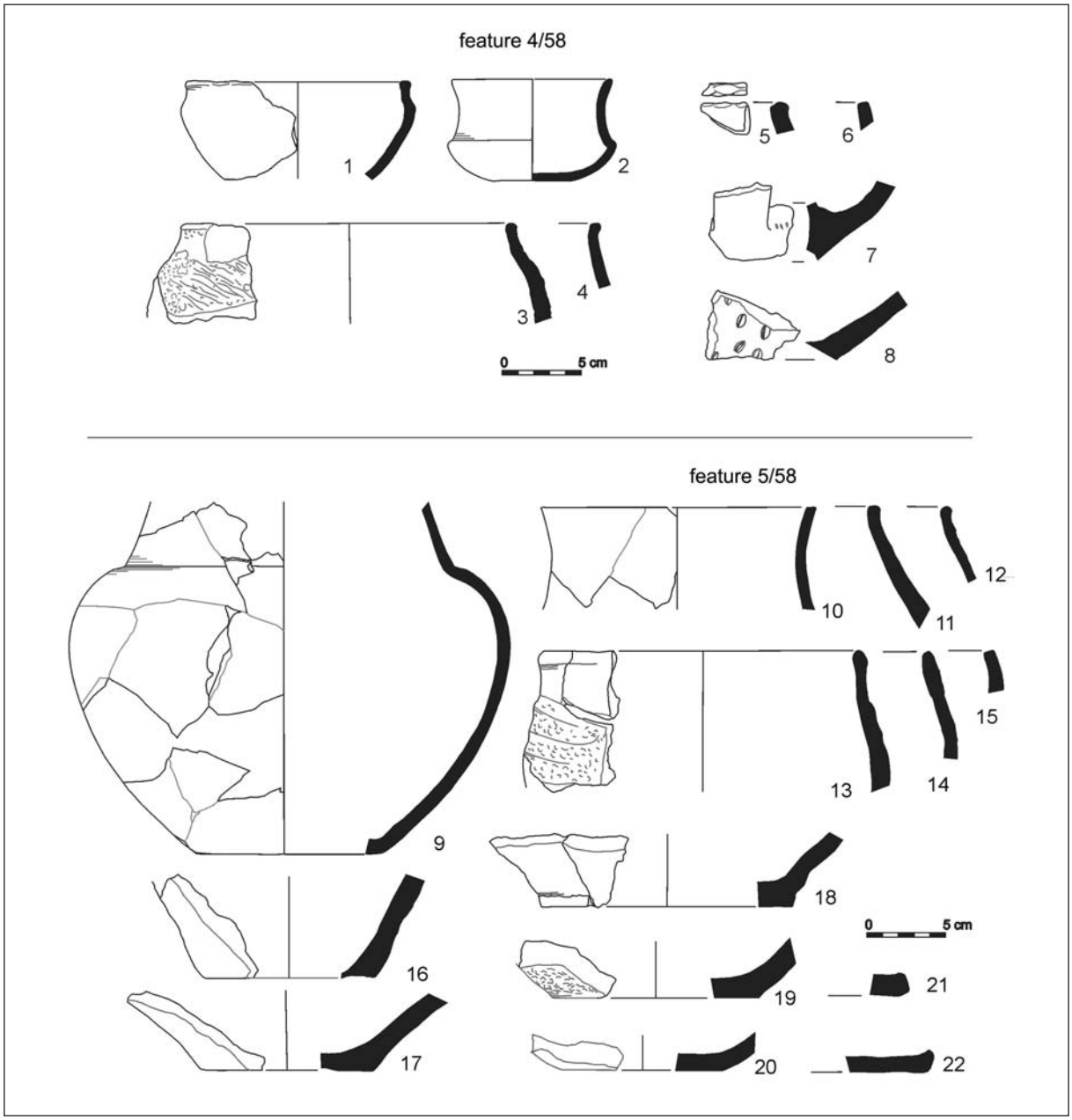

Fig. 13. Dalewice, site 1, pottery (drawing: P. Dulęba).

Dalewice, one should mention especially pots with a distinct neck part and a roughened belly, cloche-shaped bowls, S-shaped bowls, pots decorated with plastic bands with a set of grooves or a nail ornament as well as plates (Fig. 12–14). One of the most interesting items is a cup with a high neck and a semicircular bottom as well as a fragment of another cup with a band-like handle from feature 4/58 (Fig. 13/2, 7). Both vessels are well crafted and have an intensively graphitic surface. In the accumulation layer (Fig. 14/9), a lid with a sunken handle was found. Vessels of this type are characteristic of Pomeranian Culture sites in the area of the basin of the Bzura and middle Vistula rivers as well as on the east periphery of the discussed unit, namely in the basin of the Bug River.[185] These forms have a very late chronology, as indicated by the fact that at two sites: Trościanica (now Troscjanica, Kamjanec District, Belarus) and Hołowna (now Golovno, Liuboml District, Ukraine), they co-occurred with imported fibulae of the Duchcov type.[186] Feature 8/57 yielded a cloche-shaped bowl decorated with two rows of nail impressions in the part near the bottom (Fig. 12/10). A fragment of a similar vessel also comes from feature 4/58 (Fig. 13/8). Many analogies to this type of ornamentation come from the cemetery in Błonie, where vessels decorated in this way were found in graves 8, 15, 29b, 31, 36,

[185] Andrzejowska 2005, 132, Fig. 7.

[186] Andrzejowska 2005, 132.

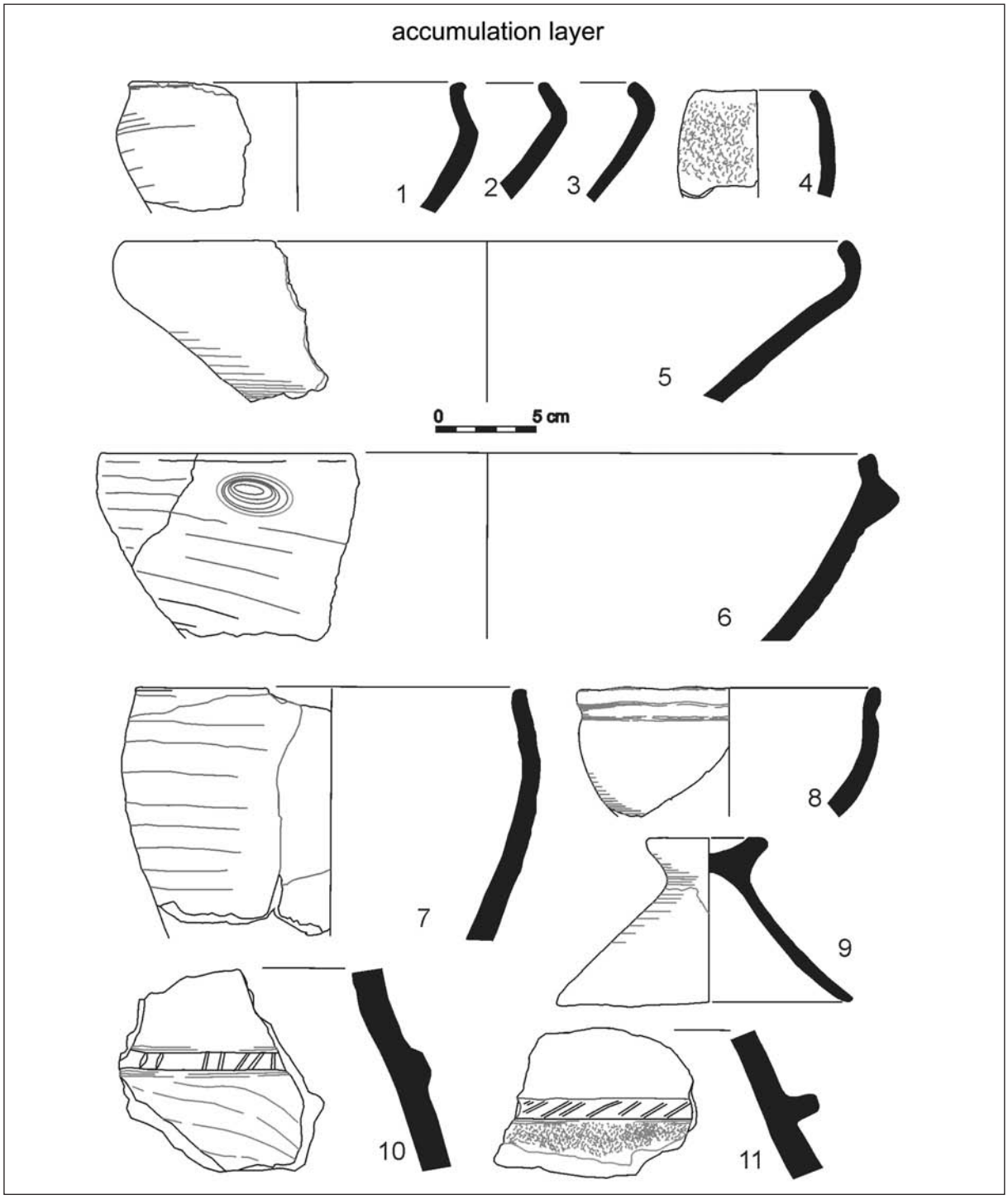

Fig. 14. Dalewice, site 1, pottery (drawing: P. Dulęba).

42, 60a, 70.[187] A similar decoration was also applied to a semicircular bowl found in Chroberz, Pińczów District (Fig. 8/10).

Excavations at Site 17 in Podłęże, Wieliczka District, have resulted in the discovery of six settlement features and one cremation grave of the Pomeranian Culture.[188] Two of the above-mentioned settlement features (features 1 and 6) can be interpreted as relics of pit houses. Also, in this case, dating the discussed assemblages is based only on the analysis of ceramic items, among which the prevailing forms are hand-made vessels, the so-called 'crude works'.[189] Similar

[187] Mycielska, Woźniak 1988, Pls. 4C/4, 6; 6B/2, 16C/2, 17B/1, 19A/1, 21C/1, 45B/2, 55A/1.

[188] Dzięgielewski 2010, 160–164. – Dzięgielewski, Szczerba, Chudzińska 2011, 330–338 and Figs. 2, 13.

[189] Dzięgielewski, Szczerba, Chudzińska 2011, Figs. 14–17.

settlement finds have also been discovered at Site 7 in Zakrzowiec, Wieliczka District, in the immediate proximity of Podłęże.[190]

There are two other sites where Pomeranian Culture settlement features are known to have been found, but the excavations have not been reported on yet. The discoveries in question are old finds from Aleksandrów and Kobylniki, Busko-Zdrój District.[191]

Knowledge of Pomeranian Culture settlement pottery is still very limited because of the very poor state of research on the settlements of this culture.[192] Apart from formulating the statement that suggests itself most, namely that the diversity of vessel types is higher than in the case of sepulchral materials, it is possible to identify some stylistic and technological trends. The main criterion for the division of the artefacts into various technological groups is the way the surface is finished. In the above-mentioned Pomeranian Culture assemblages, there was always a small group of thin-walled vessels with a very well-finished surface (polished, black, graphitic). The Pomeranian Culture population also produced thin-walled vessels with a coarse surface. Among settlement finds, the clearly prevailing type is thick-walled pottery with a roughened surface. The range of body additives was rather standardized. The prevailing additive was crushed mineral or ceramic material or a composition of crushed material and sand, whereas pottery with the addition of select fine-grained sand only was rarer. The vessels are often very roughly made. Pomeranian Culture settlements have also yielded large-sized pots, traditionally referred to as so-called cloches. At cemeteries, they were used as characteristic urn covers. These forms were considered to be exclusively sepulchral, but it seems probable that they may have functioned as storage vessels.

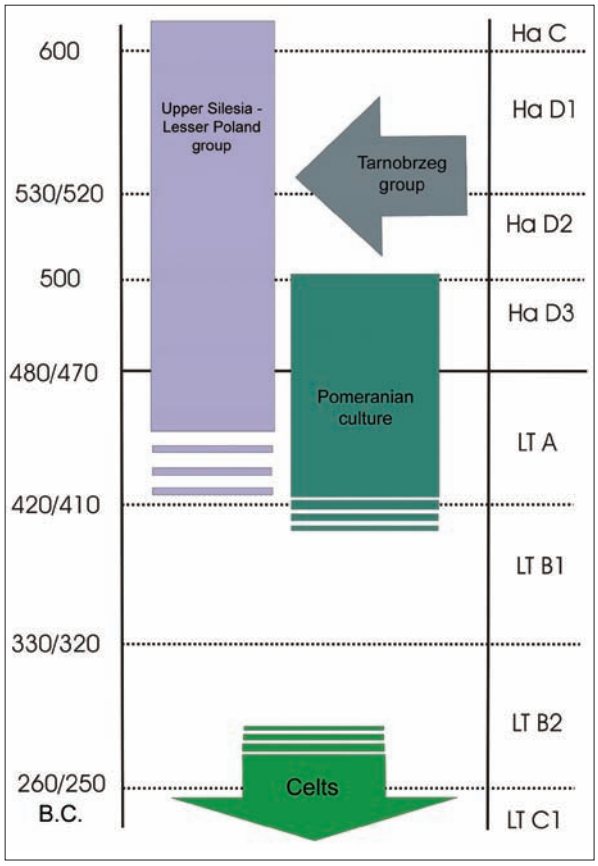

Fig. 15. Diagram of cultural change in the area of western Lesser Poland at the end of the Hallstatt period and at the beginning of the Early Pre-Roman period (elaborated: P. Dulęba).

SUMMARY

At this point, it is necessary to formulate the fundamental question: is it possible that the area of western Lesser Poland had been settled when Celtic settlers arrived there? The currently available information rules out such a possibility. It can be seen in the area of Ponidzie and Sandomierz Upland, where the chronology of the latest Pomeranian Culture materials is generally limited to the beginning of the Early Pre-Roman Period, which corresponds to Phases LT A of the La Tène Culture periodization system. Dating the latest metal artefacts from the analysed area should also cover the so-called pre-Duchcov horizon (LT B1a) distinguished to the south of the Carpathian Mountains, when La Tène style elements still persisted. In the area to the north of the Carpathian Mountains, there is no reason to distinguish such a narrow horizon. Automatically relating the La Tène Culture chronology to areas beyond its permanent settlement zone has always been controversial. It is noteworthy that in the case of the Jastorf Culture settlement areas, the possibility of dividing phase LT A in a reliable way is negated.[193]

Until recently, dating the end of the Early Iron Age cultures in the area of the basin of the Oder and Vistula rivers was distorted by serious misunderstandings, resulting mainly from a totally ungrounded shifting of the lower limit of the latest Pomeranian Culture assemblages as far as to the beginning of the Late Pre-Roman period. The latest reliably dated artefacts from Pomeranian Culture graves are fibulae with an Early La Tène structure, representing the classic Duchcov type and its later derivatives, characteristic of phase LT B2, as well as Early La Tène types of bracelets. These artefacts occur exclusively on the eastern periphery of the discussed culture, i.e. in eastern Masovia, Lubelskie Voivodeship, Polesia and Volhynia.[194]

[190] Jarosz, Rodak 2006, Figs. 8–10.

[191] Excavations carried out by J. Pyrgała, the collection of the Regional Museum in Wiślica.

[192] Cf. Czopek 1995.

[193] Brandt 2001, 51.

[194] Woźniak 1995, Fig. 3.

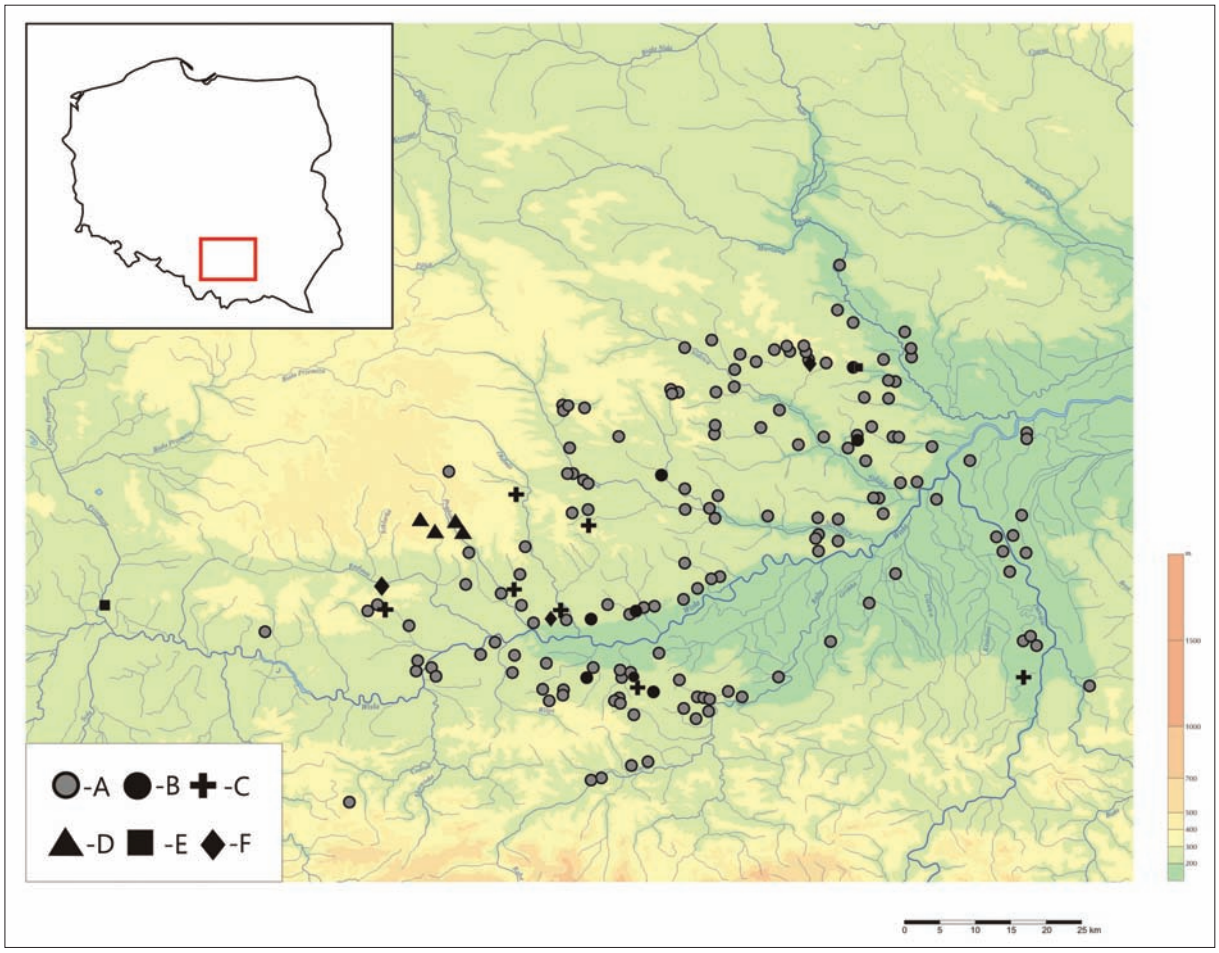

Fig. 16. La Tène culture settlement in western Lesser Poland. – A. Settlement trace. – B. Settlement (at least 1 feature). – C. Grave. – D. Cave. – E. Deposit. – F. Stray finds of unidentified character (elaborated: P. Dulęba, P. Martyński).

In the western zone of the Pomeranian Culture (Pomerania, Greater Poland, Lower Silesia, Lubuskie Voivodeship, central Poland, western Lesser Poland), clearly emerging at the turn of Ha D3 and LT A1, artefacts with such a late dating do not exist apart from uncertain stray finds of two fibulae from Bolesławiec, which may be related to the penetration of Celtic settlers from Lower Silesia, and apart from a fibula from Marszewo, Goleniów District, which may be related to Jastorf Culture settlement.[195] Among the discoveries from the discussed area, there are a lot of reliably dated Pomeranian Culture assemblages. Such a clear change in the inflow of La Tène Culture imports has been explained by the cutting off of earlier trade routes related to the expansion of the La Tène Culture in the area now known as Silesia.[196] This hypothesis should be made more specific and analysed in a broader context. In the borderland between the La Tène Culture and the Jastorf Circle (German Central Uplands), it is clearly visible that the process of the La Tène Culture expansion intensified. There are no traces of such a process in the area of northern Silesia, Greater Poland, Cuiavia, central Poland and western Masovia. This area lacks Pomeranian Culture assemblages that could be related to the period of LT B1b – LT B2. At that time, there was probably a small group of sites, which, as demonstrated recently, should be related to a local Greater Poland and Cuiavia group of the Jastorf Culture. It is most visible in the materials of the earliest phase of this cultural unit, identified at an excavated settlement in Brześć Kujawski.[197] The expansion of the Jastorf Culture is the *terminus ante quem* for the functioning of the Pomeranian Culture in western and central Poland. The same can be said about the expansion of the La Tène Culture in Silesia. It is very probable that in its western zone, the Pomeranian Culture collapsed at the beginning of phase LT B1, when the Celts arrived in Silesia.[198] The decline of Pomeranian Culture settlement in its western zone may have been related to migration to the east, which may explain the presence of the latest Pomeranian assemblages in Masovia, Lublin Land,

[195] The fragment of a fibula of Type Duchcov from the settlement in Zagórzyce (Cf. Woźniak 2010, 94) is in fact the head of a Roman Period bronze pin. Examination of artefacts kept by the Institute of Archaeology of the Jagiellonian University, courtesy of the research authors M. Grygiel and J. Pikulski.

[196] Woźniak 1995.

[197] Grygiel 2004, 23–29.

[198] Grygiel 2004, 45–46.

Polesia and Volhynia. This migration may also have involved groups of the Pomeranian Culture population inhabiting the western part of Lesser Poland, which, as I have tried to demonstrate, was in fact the western part of the area of the Pomeranian Culture. It is indicated especially by very characteristic metal ornaments and parts of clothes as well as the number of items imported from the La Tène settlement area, which is high for a Pomeranian Culture area. The western boundary of the occurrence of these elements was the Vistula River. The Pomeranian Culture was present in western Lesser Poland for a relatively short time, probably within the limits of phases Ha D3 – LT A2, with the reservation that, as already stated, phase LT A2 may also cover the so-called pre-Duchcov horizon, i.e. stage LT B1a (Fig. 15).

Currently, there are no artefacts from the discussed part of Lesser Poland that could be dated reliably to Stages LT B1b–B2a. It is worthy of note that research on settlements in Lesser Poland clearly reveals permanent degradation of local settlement structures beginning in Ha D.[199] Settlement by the Pomeranian Culture and the end phase of the Lusatian Culture is marked by a major demographic crisis, which resulted in a gradual depopulation of the discussed area. For many years, it has been suggested in the literature that the transformations that occurred in the Early Iron Age were caused by serious climate changes.[200] In the recent literature, the researchers have severely criticised this hypothesis, explicitly pointing out that there are no grounds to associate the Pomeranian Culture migration to the climate changes observed in this period.[201]

The Celts, who arrived in the area of the basin of the Upper Vistula River towards the end of the Early La Tène Period, inhabited areas devoid of permanent settlement structures and most probably completely depopulated for approx. 120–130 years. They occupied a rather vast area of the loess uplands of western Lesser Poland (Fig. 16), establishing a La Tène Culture enclave, which functioned in its classic form until phase LT C2. As clearly indicated by their material culture, the Celtic population inhabiting western Lesser Poland was closely related to the population of Silesia, Moravia and Lower Austria. This in turn may reflect a social structure that is hard to define (e.g. tribal association), in which an important part was most probably played by a Celtic tribe of Boii, well known from historical sources.

LIST 1 (SEE FIG. 1)

Pomeranian Culture sites from the area of western Lesser Poland, where the La Tène settlement functioned. Only excavated sites with at least one feature are marked as settlements. Only sites with many vessels or accurate cultural and chronological indicators are marked as traces of settlement.

1. Aleksandrów, Busko District; settlement, Muzeum Regionalne w Wiślicy, unpublished.
2. Bełk-Kwasków, Jędrzejów District; cemetery, MAK. – Matoga 1996.
3. Bilczów, Busko District; disturbed grave, WUOZ Kielce. – Konieczny 1988, 98.
4. Bocheniec, Jędrzejów District; cemetery, MN Kielce, WUOZ Kielce and private collection. – Konieczny 1988, 99–118.
5. Bogucice, Pińczów District; disturbed grave, MAK, Muzeum Regionalne w Pińczowie. – Kostrzewski 1923, 45. – Nosek 1946, 70 and Pl. XXII/15–17. – Konieczny 1988, 118–119 and Pls. XXXVIII/1–4, XXXIX/1.
6. Boszki, Kielce District; disturbed grave? MN Kielce. – Nosek 1946, 53–54 and Pls. XIII/1, XXI/4. – Konieczny 1988, 119–120 and Pl. XXXV/1–2.
7. Brzegi, Jędrzejów District; disturbed graves? MN Kielce. – Konieczny 1988, 120–123.
8. Budzyń, Busko District; trace of settlement, PMA. – Majewski 1901, 65.
9. Chroberz, Pińczów District; settlement, IAiE PAN Kraków. – Potocki 1962.
10. Czechów, Pińczów District; cemetery, MN Kielce. – Nosek 1946, 71–72 and Pl. XII/1–3. – Konieczny 1988, 125–127.
11. Dalewice, Proszowice District; settlement, IAiE PAN Kraków, unpublished.
12. Dzierążnia, Pińczów District; disturbed grave, former collection of Muzeum Towarzystwa Krajoznawczego w Kielcach (lost ?). – Kostrzewski 1923, 45. – Nosek 1946, 72 and Pl. XII/7–9.
13. Galów, Busko District; disturbed graves, MN Kielce. – Konieczny 1988, 128–130.
14. Gnojno, Busko District; cemetery, MN Kielce. – Konieczny 1988, 130–134.
15. Goszyce, pow. krakowski; disturbed grave, MAK. – Nosek 1946, 58 and Pl. XXI/11.
16. Grochowiska, Pińczów District; disturbed cemetery? MAK. – Nosek 1946, 72.
17. Grudzyny, Jędrzejów District; disturbed grave? MN Kielce. – Konieczny 1988, 135.
18. Jakuszowice, Kazimierza Wielka District; settlement, IA UJ. – Godłowski 1986. – Rodzińska-Nowak 1999.
19. Janina, Busko District; cemetery, PMA. – Majewski 1901, 60–75. – Nosek 1946, 94–99 and Pls. XIII/11, XV/3, 8; XVI, XVIII, XIX/1, 4; XX/3, 6; XXI/8, 15–16; XXII/1–10.
20. Janowice Poduszowskie, Jędrzejów District; disturbed grave, MN Kielce. – Konieczny 1988, 145–147.
21. Jurków, Busko District; cemetery, MAK. – Nosek 1946, 72–73 and Pl. II.

[199] Cf. Rydzewski 1997.

[200] Kurnatowski 1982. – Czopek 2005, 225.

[201] Dzięgielewski 2010a, 183–185, with further literature.

22. Karniów, pow. krakowski; disturbed grave? MAK. – Nosek 1946, 101.
23. Kawczyce, Busko District; disturbed cemetery, MAK. – Nosek 1946, 99 and Pl. XI/3–4, 10.
24. Klępie Górne, Staszów District; disturbed grave, MN Kielce. – Konieczny 1988, 154.
25. Korytnica, Jędrzejów District, site 1; cemetery, Muzeum Regionalne w Pińczowie. – Marciniak 1963, 123–135. – Marciniak 1973. – Konieczny 1988, 154–166. – Arct, Matoga 1995.
26. Korytnica, Jędrzejów District, site 2; disturbed grave, MN Kielce. – Konieczny 1988, 166–168.
27. Kraków-Pleszów, sites 17–20; trace of settlement, MAK. – Woźniak, Poleska 1999.
28. Ławy, Kazimierza Wielka District; disturbed cemetery, MAK. – Nosek 1946, 73–74 and Pl. V.
29. Makocice, Proszowice District; cemetery? – Kubicha 1997, 295.
30. Marzęcin, Pińczów District; disturbed grave? Muzeum Regionalne w Pińczowie. – Konieczny 1988, 173.
31. Młodzawy Duże, Pińczów District; trace of settlement, WUOZ Kielce, unpublished.
32. Mokrsko Górne, Jędrzejów District; disturbed grave, MN Kielce. – Konieczny 1988, 174–175.
33. Motkowice, Jędrzejów District; trace of settlement, PMA. – Nosek 1946, 53.
34. Nida, Kielce District; cemetery, PMA. – Konieczny 1988, 176–178.
35. Nieprowice, Pińczów District; trace of settlement, Muzeum Regionalne w Pińczowie. – Dulęba 2014, 321–322.
36. Pełczyska, Pińczów District, site 1; trace of settlement, IA UW. – Woźniak, Poleska 1999, 388.
37. Pełczyska, Pińczów District, site 9; disturbed grave? IA UW, unpublished.
38. Pińczów; disturbed graves? Muzeum Regionalne w Pińczowie. – Konieczny 1988, 180.
39. Podłęże, Wieliczka District; settlement, MAK. – Dzięgielewski 2010. – Dzięgielewski, Szczerba, Chudzińska 2011.
40. Proszowice, disturbed grave, Muzeum Ziemi Miechowskiej w Miechowie? (old collection of Julian Piwowarski). – Nosek 1946, 58.
41. Raczyce, Jędrzejów District; disturbed grave, MN Kielce. – Konieczny 1988, 181–182.
42. Rębów, Pińczów District; disturbed cemetery, MAK. – Kostrzewski 1923, 45–46. – Nosek 1946, 75.
43. Rzeszutki, Jędrzejów District; trace of settlement, MN Kielce. – Konieczny 1988, 182–183.
44. Słupów, Miechów District; disturbed grave, Muzeum Przypkowskich w Jędrzejowie. – Kostrzewski 1923, 45. – Nosek 1946, 58.
45. Sobowice, Jędrzejów District; disturbed graves? MN Kielce. – Konieczny 1988, 186–187.
46. Strumiany, Wieliczka District (erroneously Koktów-Strumiany); trace of settlement, Muzeum Żup Krakowskich w Wieliczce. – Woźniak, Poleska 1999.
47. Zagość, Pińczów District; cemetery, Muzeum Regionalne w Pińczowie. – Konieczny 1988, 189–190.
48. Zagórzyce, Kazimierza Wielka District, site 1; settlement, IA UJ. – Grygiel, Pikulski, Trojan 2009, 201.
49. Zagórzyce, Kazimierza Wielka District, site 2; trace of settlement, IA UJ, unpublished.
50. Zakrzowiec, Wieliczka District; trace of settlement, MAK. – Jarosz, Rodak 2006, Fig. 8–10.
51. Zegartowice, Jędrzejów District; trace of settlement, WUOZ Kielce. – Konieczny 1988, 191.
52. Żydów, Pińczów District; disturbed cemetery, MAK. – Nosek 1946, 99–100.
53. Żurawniki, Busko District; trace of settlement, Muzeum Regionalne w Wiślicy, unpublished. Cemeteries with mixed elements of Lusatian and Pomeranian culture:
54. Kraków-Pleszów, site 17; cemetery, MAK. – Poleska 2006.
55. Stradów, Kazimierza Wielka District; cemetery, IAiE PAN Kraków. – Rogozińska-Goszczyńska 1974. – Błasiak 1994.

ABBREVIATIONS

IAiE PAN Kraków – Instytut Archeologii i Etnologii Polskiej Akademii Nauk, oddział w Krakowie
IA UJ – Instytut Archeologii Uniwersytetu Jagielońskiego
IA UW – Instytut Archeologii Uniwersytetu Warszawskiego
MAK – Muzeum Archeologiczne w Krakowie
MN Kielce – Muzeum Narodowe w Kielcach
PMA – Państwowe Muzeum Archeologiczne w Warszawie
WUOZ Kielce – Wojewódzki Urząd Ochrony Zabytków w Kielcach

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NEW FINDS FROM THE LA TÈNE PERIOD FROM WESTERN LESSER POLAND

PRZEMYSŁAW DULĘBA

Abstract: This article presents the new finds of La Tène Culture artefacts from the territory of western Lesser Poland. During verification surveys in Kościejów, Miechów District, carried out in the years 2010–2011, which involved using metal detectors on a large scale, apart from a large number of artefacts from the Middle Ages, seven metal La Tène Culture artefacts and pottery were found. The most interesting metal artefact is the fragment of a bronze buckle from a chain belt. Also, two bronze pendants and four circular rings, which were parts of a chain belt, were found in Kościejów. Finds from Kochanów and Staniątki constitute a separate category, namely, they are accidental stray finds delivered to academic institutions by chance finders. A partly preserved iron brooch of Middle La Tène construction was discovered in Kochanów, Kraków District. Another artefact that was accidentally found is an iron axe. According to the information provided by the finder, it was discovered on the wooded hill called Góra Winnica, situated on the southeast edge of the locality of Staniątki, Wieliczka District.

Keywords: Lesser Poland, La Tène culture, jewellery and elements of clothes, pottery, tools

Western Lesser Poland is an area which has been very well studied archaeologically. The all-Poland programme Archaeological Record of Poland (AZP), which involves recording archaeological sites by means of field surveys, has been completed for the vast majority of the region. Nevertheless, La Tène Culture finds from western Lesser Poland are still very rare. It is due to many causes, which may be connected with objective research obstacles.

The finds from Kościejów presented below are the result of field surveys conducted in the years 2010–2011, which verified previous surveys carried

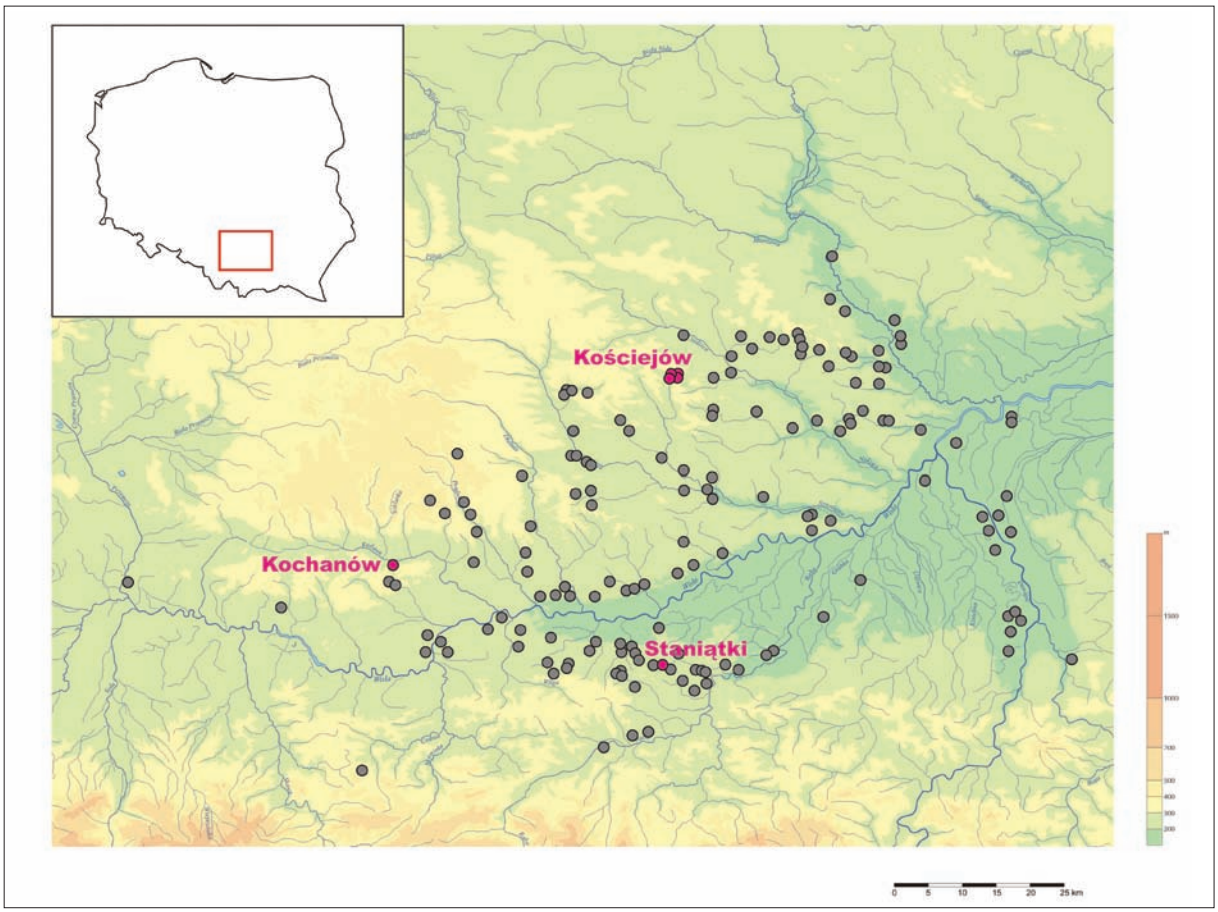

Fig. 1. La Tène culture settlement in western Lesser Poland (elaborated: P. Dulęba, P. Martyński).

out as part of the Archaeological Record of Poland programme. These surveys are an introduction to further activities aimed at identifying settlement transformations in the Iron Age in the clearly distinct area of loess uplands situated to the north of the Wisła Valley. Finds from Kochanów and Staniątki are a separate category, namely, they are accidental stray finds delivered to academic institutions by chance finders. Finds presented in this paper come from sites where traces of settlement of the La Tène Culture, which was present in Western Lesser Poland in the 3rd and 2nd centuries BC, have been found (Fig. 1).

Kościejów, Miechów District

A verification field survey was conducted at the site complex in the locality of Kościejów, Miechów District. The most interesting one from the perspective of research on the Iron Age is Site 23 (AZP 97-59/104). It comprises a vast multicultural settlement with a surface area of over 5 ha, situated at the bottom of the Kościejów Strath (Padół Kościejowski) (Fig. 2). It is a very characteristic form of the lie of the land,[1] which is approx. 1 km wide, oriented with the longer axis on the NW-SE line over a distance of approx. 7 km. Its depth reaches approx. 50 m, its slopes are relatively steep and its bottom is flat (Fig. 3). The ground is composed of chernozem, which developed on loess, with chalk marl deposited underneath.[2] Right beside the site are the sources of two small rivers: the Racławka flowing west, and the Słupówka flowing east. The immediate surroundings of the site are very marshy and underwent land improvement in contemporary times. As this description shows, this place is definitely different from typical settlement sites of the La Tène Culture in Lesser Poland and Silesia.

The material from the La Tène Culture that has been collected occurred over a relatively extensive area, which also indicates that it is probably a larger settlement than a typical single homestead complex, which is so characteristic of this archaeological unit. However, these findings are dubious, considering heavy agricultural exploitation of the area, which favours post-depositional processes and erosion. Moreover, the area of the site was deformed due to parcelling out, resulting in high field-ridges.

Site 23 was discovered during a field survey within the AZP programme in 1998[3] and a few La Tène Culture vessel fragments were found at that time. During verification surveys in the years 2010–2011, which involved using metal detectors on a large scale, apart from a large number of artefacts from the Middle Ages, seven metal La Tène Culture artefacts were found (Fig. 4):

1. A fragment of a bronze buckle from a chain belt, a circular ring attached to a hooked fastening; length of the preserved fragment 4.5 cm, width 1.7 cm

[1] Gilewska 1958, Fig. 1.

[2] Gilewska 1958, 12–16.

[3] The survey in zone AZP 97–59 was conducted by J. Górski and M. Zając from the Archaeological Museum in Kraków.

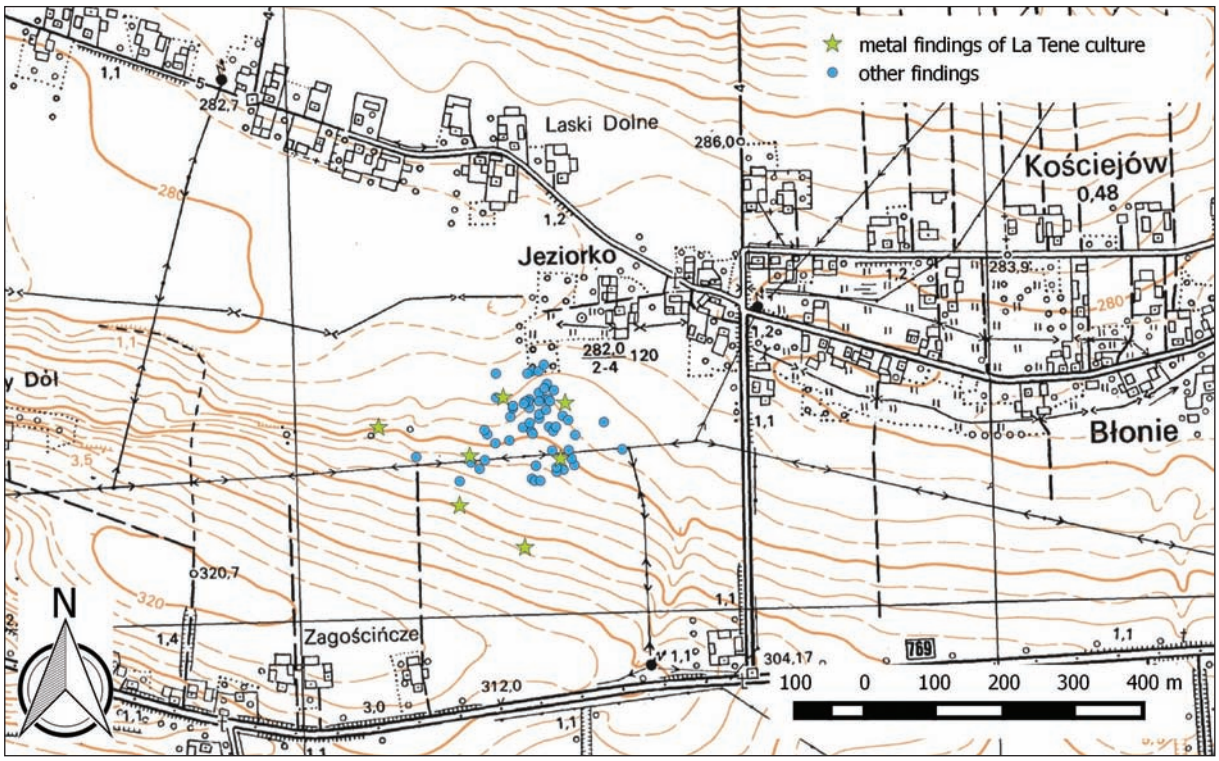

Fig. 2. Kościejów, Miechów District, site 23, mapping of artefacts (elaborated: P. Dulęba).

Fig. 3. Kościejów, Miechów District, the Kościejów Strath, view from site 23 (photo: P. Dulęba).

2. A bronze pendant from a chain belt, in the shape of an elongated triangle with a circular fastening, which has been partially preserved, with a cell with remains of enamel on one side; length 3.2 cm, width 1.1 cm
3. A bronze pendant from a chain belt, biconical, with a semicircular end; length 3 cm, width 1.1 cm
4. A bronze ring – a link from a chain belt, irregular section; diameter 2.9 cm
5. A bronze ring – a link from a chain belt, oval section; diameter 2.8 cm
6. A bronze ring – a link from a chain belt, oval section; diameter 2.2 cm
7. A bronze ring – a link from a chain belt, circular section; diameter 3.1 cm

The most interesting metal artefact from Site 23 in Kościejów is the fragment of a bronze buckle from a chain belt. It is a relatively simple form with a curved hook to which a circular ring is attached (Fig. 4/5). This artefact has been preserved only partially, which is why it is difficult to determine with certainty whether it was the main or a side buckle of the belt. Such simple forms of buckles from chain belts are much less frequent than items with stylized animal representations. The closest analogies to the artefact from Kościejów are items from Lenting and Regensburg in Bavaria[4] and two buckles from the cemetery in Lovosice, Louny District.[5] The only difference is that they are very schematically stylized as animal heads. One of these items was part of a bimetal belt (with iron links). There is also a similar, non-decorated artefact from Lenešice, Louny District, in northwest Bohemia and from Vyškov in Moravia.[6] An identical fastening to the one in the item from Kościejów has been found in a buckle discovered near Camp-de-Châlons, Marne Department in Champagne.[7] It differs from the item from Kościejów in that it has a quadrangular plate ornamented with enamel instead of a circular ring.

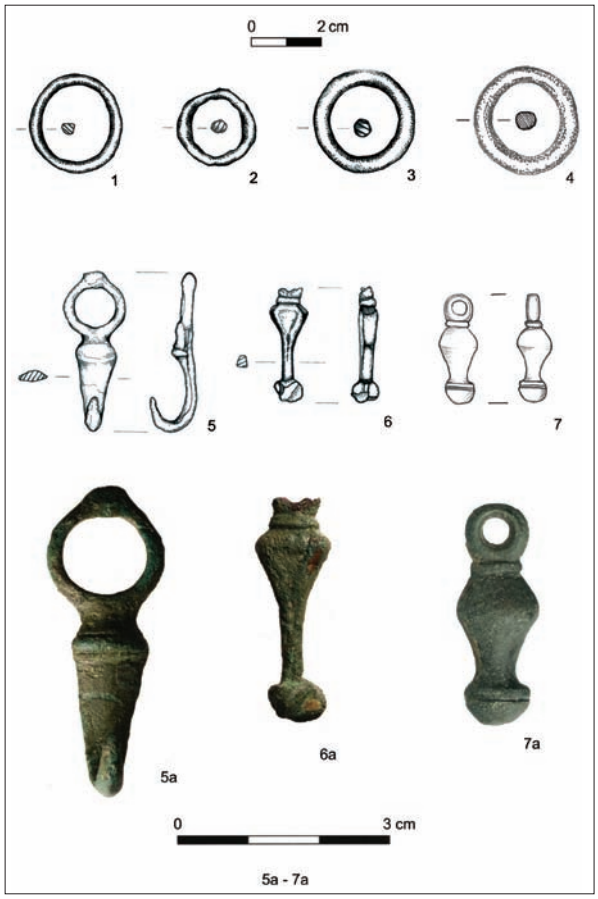

Fig. 4. Kościejów, Miechów District, site 23. La Tène culture artefacts, 1–5, 7: bronze, 6: enamelled bronze (drawing: B. Mydlak, photo: P. Dulęba).

A similar size and form (fastening linked to the ring) is also known from buckles with strongly stylized animal heads, many of which have been discovered in Bohemia,[8] Slovakia[9] and Bavaria.[10] Buckles of this type are parts of chain belts from Group Gk-E1 in the classification by J. Bujna.[11]

Also, two bronze pendants, which were parts of a chain belt, were found in Kościejów. The first one (Fig. 4/6) is in the shape of an elongated triangle, ending in a grooved knob. A circular handle has been partially preserved. On one side there is a triangular cell for enamel. This artefact has very good analogies from Moravian La Tène Culture sites. An almost identical item was found in Těšice.[12] Pendants with a similar shape are also known from the emporium in Němčice nad Hanou.[13] Another pendant of this type is known from grave 34 at the cemetery in Ponětovice,[14] where it was a part of a belt of the Oberrohrbach type. Artefacts of this type are distinguished by

[4] Krämer 1985, Pls. 50/16 and 92/3.

[5] Zápotocký 1973, Figs. 6/1 and 11/6.

[6] Filip 1956, Pl. XLIII/6, Fig. 50/5.

[7] Challet 1990, Pl. 31.

[8] Kruta 1975, Figs. 67/3–5, 69/4–5.

[9] Filip 1956, Pl. CIV/1.

[10] Krämer 1985, Pls. 4/1a, 10, 18/9.

[11] Bujna 2011, 87–89 and Fig. 36.

[12] Čižmář et al. 2010, 129 and Fig. 5/7.

[13] Čižmář, Kolníková 2006, Fig. 5/15.

[14] Čižmářová 2011, Fig. 47/4.

characteristic links in the form of a flat ring with two quadrangular plates, each of which has two or three holes, to which small chains with links made of thin wire were attached.[15] The end of such a belt has the form of three separate chains weighted with pendants of the type described above. Such belts have been discovered in La Tène Culture graves in the Rhineland, Bavaria, Lower Austria, Bohemia and Moravia.[16] J. Waldhauser dates belts of this type to phase LT C1b.[17] What may also indicate such a chronology for these items is the dating of grave 1416 from Wederath, where a belt of the Oberrohrbach type was discovered together with two brooches from group 13b according to Gebhard.[18] A similar dating can be applied to the above-mentioned grave 34 from Ponětovice, where finds included a long, iron brooch of a Middle La Tène construction with a four-coil spring and an inner spring cord.[19] The other pendant is biconical with a thickened, spherical end (Fig. 4/7). In this case as well, analogous artefacts are known from settlement sites in Moravia, e.g. Medlovice and Bořitov.[20] The chronological position of this item is probably close to that of the one analysed above.

Apart from the above-mentioned artefacts, four circular rings with diameters ranging from 2 to 3 cm (Fig. 4/1–4) can also be interpreted as remains of chain belts. Artefacts of this type are usually links joining different elements of a belt or, in the case of larger items in particular (Fig. 4/4), separate parts of a belt, which were linked by elements made of organic materials.[21]

Women's chain belts have been found in graves belonging to horizon 5 (stage LT B2b) of flat cemeteries.[22] This item of clothing was most popular in phase LT C1, but finds from oppida and some late grave assemblages including items from Bavaria[23] prove that they were commonly used in phase LT C2. Fragments of chain belts from western Lesser Poland can generally be dated to phase LT C1, which is indicated by most of the above-mentioned analogies. It is very difficult to date individual elements of women's chain belts more precisely. In many cases, some characteristic parts (buckles, links, pendants) were present in different types of belts at the same time. One should bear in mind that these items of clothing were very complex and were probably a kind of combination of elements available to the craftsman. It is possible to distinguish different types definitively only in a few cases. It is even more difficult to classify and date settlement finds, which are usually only partially preserved.

The field survey at Site 23 in Kościejów yielded 30 fragments of La Tène Culture pottery (26 fragments of wheel-thrown vessels and 4 fragments of handmade vessels), which may be classified as typical settlement finds, characteristic of the local settlement dated to the Middle La Tène period.[24] The most interesting clay artefact is a fragment of a wheel-thrown graphite situla with a roll decorated with oblique, dotted lines, below which there is a row of S-shaped stamps (Fig. 5/10). A fragment of an analogously decorated vessel has also been found in Jurków, Busko-Zdrój District.[25] An identical motif can be found on a completely reconstructed specimen of a graphite pot from Racibórz-Ocice.[26] The vessel, distinguished by a biconical, very prominent profile, belongs to the group of Early La Tène situlae. The above-mentioned ornaments were applied to the place where the belly was most prominent, which is a rare feature. An exact analogy to this type of ceramic form is also known from a Moravian settlement in Ježkovice-Černov.[27] Very good analogies to the combination of both ornaments from Kościejów and Jurków are known from Moravia (Fig. 6), where it occurs on vessels found in Early La Tène contexts.[28]

A situla decorated with stamp impressions in the form of an inverted letter S is also known from Kraków-Mogiła.[29] Specimens decorated in the same way as the situla from Kraków-Mogiła are known from Moravian settlements,[30] as well as from the territory of central Bohemia.[31] The letter S motif is very typical of LT A and occurs on many vessels classified as Braubach-type ceramics. Examples of such ornamentation are known from southern Bohemia.[32] In Moravia, S-shaped stamps probably lasted a bit longer. It is worth mentioning that graphite situlae provided with a protruding roll, decorated with oblique, dotted lines, occur quite often at sites in the Carpathian Basin.[33] They also occur, though more rarely, in southern Moravia[34] and eastern Bohemia.[35]

[15] Lauermann 1989, Figs. 2–3.

[16] Bieger 2003, Map 21, List 19.

[17] Waldhauser 1987, Fig. 4/121.

[18] Cordie-Hackenberg, Haffner 1991, Pl. 374/j, l, m.

[19] Čižmářová 2011, Fig. 47/5.

[20] Čižmář et al. 2010, Figs. 3/4, 6/4.

[21] Bujna 2011, 11–14.

[22] Gebhard 1989, Fig. 45.

[23] Krämer 1985, Pls. 1/7, 8/1, 4; 23/1.

[24] Dulęba 2014, Fig. 2.

[25] Woźniak 1970, 321–322.

[26] Jahn 1931, 147 and Fig. 69.

[27] Čižmář 1993, Fig. 250/16.

[28] Enderová 1994, Fig. 11/11. – Čižmářova 2004, 166, 306.

[29] Woźniak 1970, Pl. XXXIII/23.

[30] Meduna 1980, Pls. 70/1, 3; 129/19. – Meduna 1980a, Pls. 70/5, 73/9, 84/1, 5–6. – Horálková 1993, Fig. 5/5. – Hlava 2001, Fig. 23/1.

[31] Filip 1956, Pl. CIX/4.

[32] Filip 1956, Fig. 55.

[33] Hunyady 1942, Pl. LXXVI/1,9. – Bujna 1989, Pl. XVI/24. – Bujna 1995, Pl. IV/5. – Szabó 2007, Pls. CXVIII/13, CXX/1, CXXIX/8.

[34] Meduna 1980, Pls. 81/13, 127/9. – Čižmář 2002, Fig. 9/2.

[35] Rybová 1968, Pl. XXIII/8.

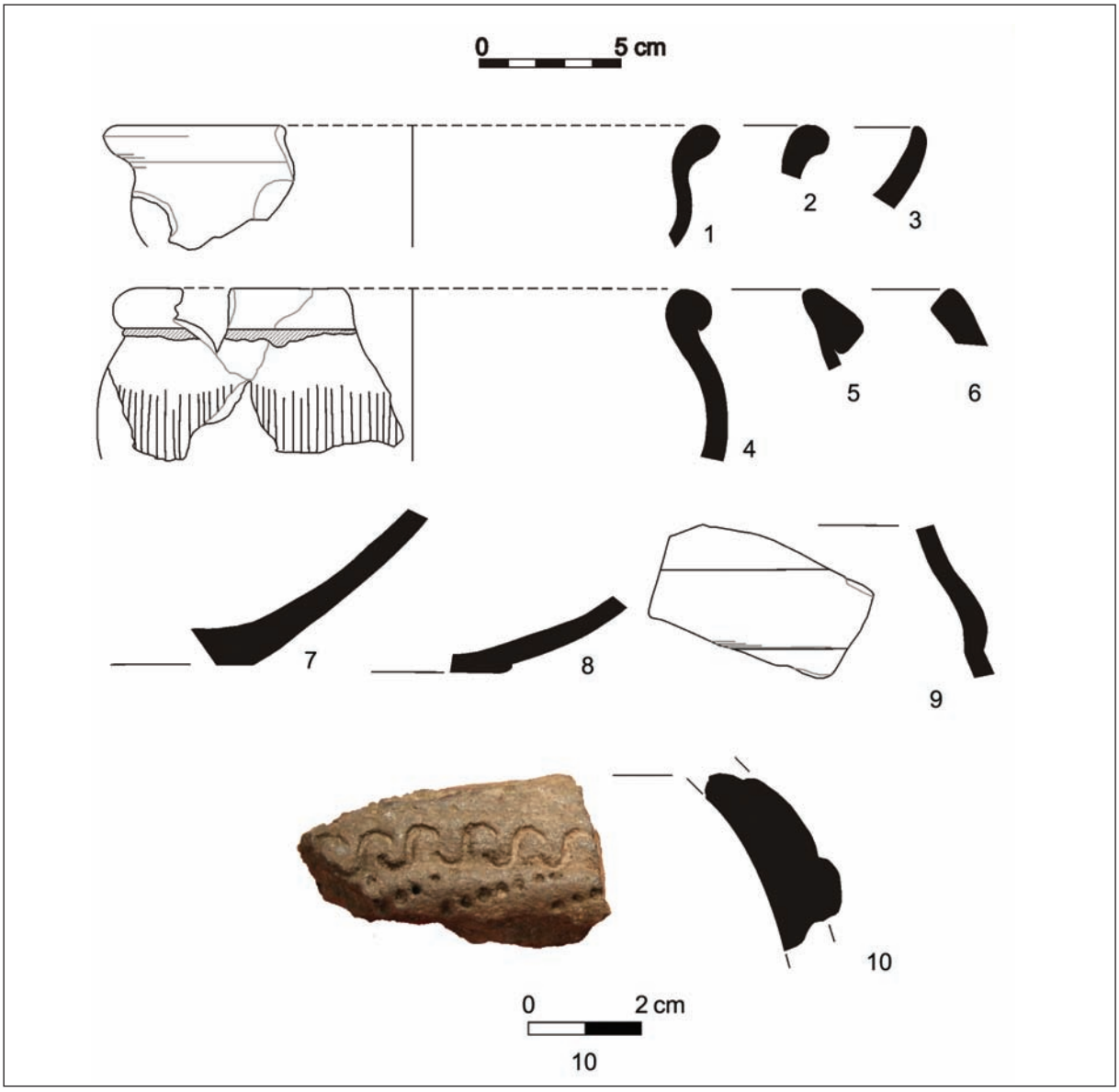

Fig. 5. Kościejów, Miechów District, site 23. La Tène culture artefacts, 1–2, 4–5, 8–10: wheel-made vessels, 3, 6–7: hand-made vessels (drawing and photo: P. Dulęba).

The combination of ornaments described above is most probably a throw-back to earlier patterns, characteristic of the Early La Tène period. Therefore, the specimen found in Kościejów should be considered a vessel from the earliest settlement horizon of a western Lesser Poland enclave of the La Tène Culture. The horizon should be associated with the end of phase LT B2 and the beginning of phase LT C1.

The items found at Site 23 also include a partly preserved graphite situla with a rim diameter of 20 cm (Fig. 6/4) and an S-shaped bowl that was wheel-thrown and fired in an oxidising atmosphere (Fig. 6/2). They are specimens representing the most common types of Celtic vessels, also very characteristic of western Lesser Poland.[36] The graphite situla was repaired, as indicated by a clearly preserved trace of an iron band around the neck, which held together the broken part of the vessel.

New traces of La Tène Culture settlement were found not only at Site 23 in Kościejów, but also at Site 16 AZP 97-59/97 and Site 19 AZP 97-59/100. These are also multicultural sites, where La Tène Culture material has occurred only in the form of a few fragments of wheel-thrown graphite vessels. As far as research carried out as part of the AZP programme is concerned, La Tène Culture graphite pottery was also found at Site 12 AZP 97-59/93, although later penetration of this site did not bring positive results. Thanks to the data obtained during the field survey, a very clear settlement pattern was recorded. La Tène Culture sites are located at the bottom of the Kościejów Strath, on both sides, approx. 400–500 m from each other (Fig. 7). The few traces of La Tène Culture settlement recorded at Sites 12, 16 and 19 may be traces of the functioning of

[36] Dulęba 2014, Fig. 2.

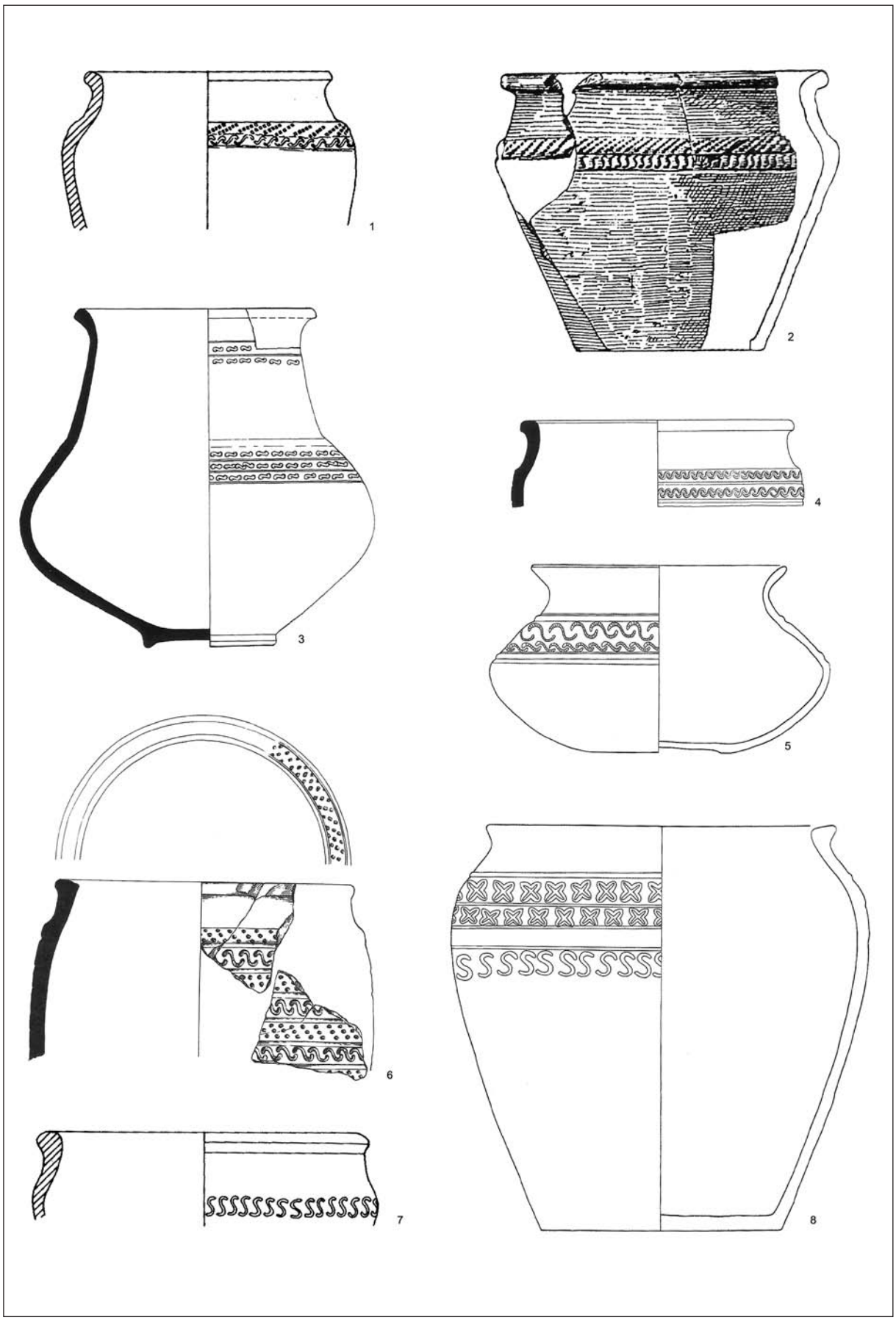

Fig. 6. Celtic vessels with stamp ornaments. – 1. Ježkovice-Černov (after Čižmář 1993). – 2. Racibórz-Ocice (after Jahn 1931). – 3. Brno-Židenice (after Čižmářová 2011). – 4. Mutěnice (after Čižmářová 2011). – 5. Trajanov (after Kruta, Lička 2004). – 6. Slavkov u Brna (after Čižmářová 2004). – 7. Šlapanice (after Čižmář 1993). – 8. Dobšice (after Kruta, Liška 2004).

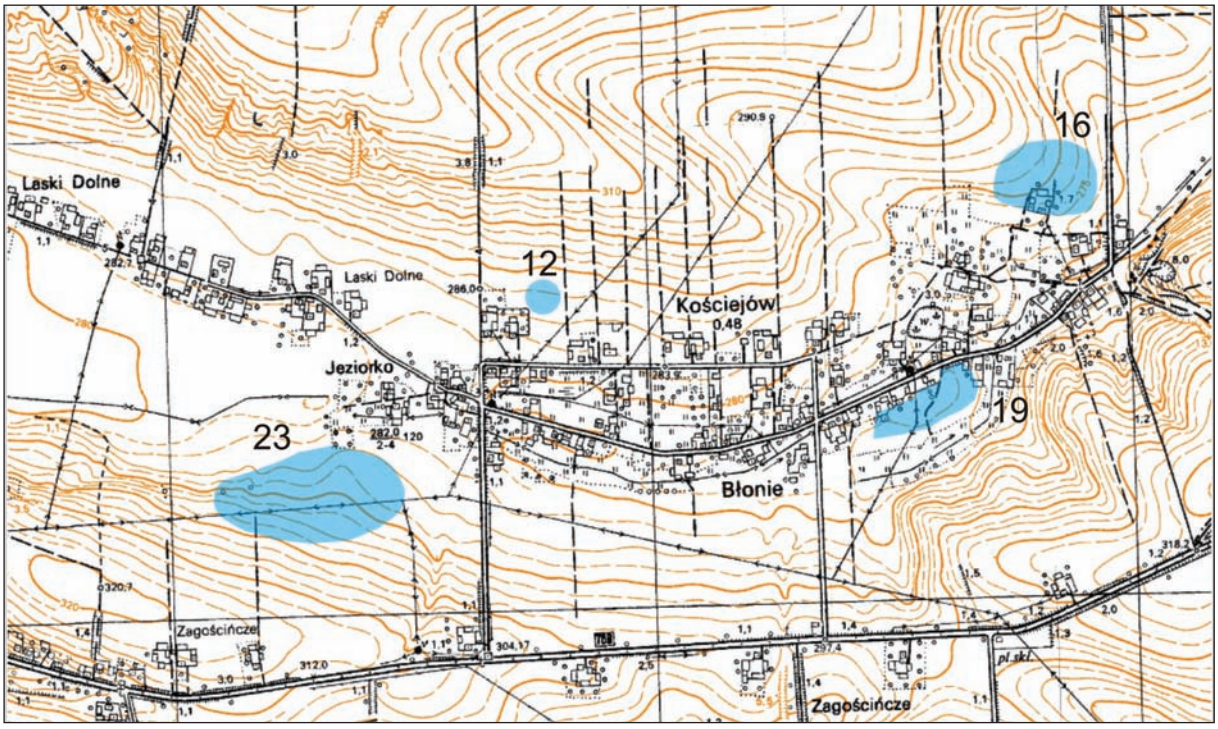

Fig. 7. La Tène culture sites in Kościejów, Miechów District (elaborated: P. Dulęba).

isolated, secluded homesteads, used on a small scale. Site 23, which was considerably larger and more intensively populated, probably functioned as the central settlement for the whole of the micro-region detailed above.

KOCHANÓW, KRAKÓW DISTRICT

The Institute of Archaeology of the University of Warsaw has been given a partly preserved iron brooch of Middle La Tène construction. According to the finder's laconic description, the artefact was discovered in a wooded ravine situated to the south of Kochanów, Kraków District (Fig. 8). The indicated location is very close to La Tène Culture sites, so the find should probably be associated with this taxonomic unit. About 3.5 km to the south of the ravine, two vast multicultural sites, Aleksandrowice 2 and Aleksandrowice 3, were examined during rescue excavations related to the construction of the A4 motorway. At one of them, a few traces of settlement were found, and at the other, a single La Tène Culture burial was discovered.[37]

The preserved parts of the brooch included the upper part of the bow, the foot-bow joint in the form of a profiled knob and two coils of what had originally been a 4-coil spring with an outer cord (Fig. 9). The length of the preserved fragment is 7.9 cm and the diameter of the bow is 6 mm. An analogous artefact was found in a secondary deposit in Feature 1624 within the settlement in Zagórze, Wieliczka District.[38] It is also a (6.1 cm-long) fragment of an iron brooch of a Middle La Tène construction and with an arched bow with a profiled, rather broad clasp binding the foot. The item has a 4-coil spring with an outer cord. A similar specimen is also known from the settlement at Sites 17–20 in Kraków-Pleszów.[39] On the basis of their morphological features and relatively large size, all the above-mentioned brooches should be associated with Group 15a in R. Gebhard's classification.[40] The bow of a brooch which hypothetically may be associated with Group 15 comes from Site 13 in Zakrzów.[41]

Brooches of Gebhard's Group 15 represent one of the most common types in the La Tène Culture. They are primarily distinguished by their size. Most of them are approximately 13–15 cm long. A completely preserved "model" Group 15 brooch of this kind has recently been found in Slovenské Pravno, Slovakia.[42] Another distinctive feature is a characteristic, often profiled clasp and a leg ornament in the form of a small ball or knob, sometimes made of bronze. Such brooches are known from many grave assemblages[43] as well as from settlement finds, e.g. from Moravia,[44]

[37] Naglik 2000, Pl. 154/1. – Naglik 2001, 318–319. – Bochnak 2006, 167 and Figs. 7, 8.

[38] Dulęba et al. 2012, Fig. 11/9.

[39] Poleska 2006, Fig. 20/1.

[40] Gebhard 1991, 17 and Fig. 5/15a.

[41] Mycielska 1981, Fig. 2/11.

[42] Pieta 2008, Fig. 2/16.

[43] Gebhard 1989, Fig. 42/7–8.

[44] Meduna 1980, 113 and Pls. 13/1, 19/5, 39/5, 117/6.

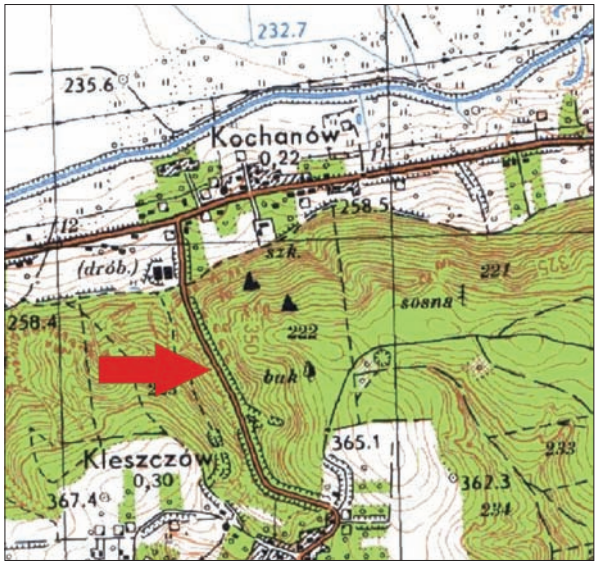

Fig. 8. Kochanów, Kraków District, location of find (elaborated: P. Dulęba)..

Fig. 9. Kochanów, Kraków District, iron brooch (drawing: B. Mydlak, photo: P. Dulęba).

Slovakia[45] and Bavaria.[46] A brooch that should be associated with Gebhard's group 15 was also found in the latest La Tène Culture burial (grave 1752) at the cemetery in Kietrz.[47] The above-mentioned fibulae are commonly considered to belong to the main indicators of phase LT C1,[48] but first brooches of this type appeared as early as phase LT B2, when they occurred in graves with plastic-style items, typical of horizon 5 of flat cemeteries.[49] In J. Bujna's classification, analogous brooches are referred to as type EF-Lx-A and are dated to the later stage of LT C1.[50]

STANIĄTKI, WIELICZKA DISTRICT

Another artefact that was accidentally found and given to the Institute of Archaeology of the University of Warsaw is an iron axe. According to the information provided by the finder, it was discovered on the east slope of a wooded hill called *Góra Winnica*, situated on the southeastern edge of the locality of Staniątki, Wieliczka District (Fig. 10). The place where the item was found is around 850 metres to the east of the Drwinka River, on which Site 2 in Zagórze was located. It was subject to rescue excavations before the construction of the Kraków-Tarnów section of the A4 motorway. At this site, very dense traces of settlement were found, including relics of La Tène Culture and Tyniec Group settlements.[51] Due to that, the place where the presented artefact was found seems related to the broadly understood hinterland of this settlement.

The axe from *Góra Winnica* has been preserved almost completely (Fig. 11). Its length is 8 cm, the width of its socket at the opening is 2.8 cm, the width of the blade is 4 cm. In one of the side edges, near the end of the socket, there is a hole with a diameter of 5 mm, probably used to fix the axe to a wooden haft with a nail. The socket was most probably formed by hammering together, which is why a small portion of the metal sheet is delaminated in the upper part.

Iron socketed axes (German *Tüllenäxte*), in the Polish literature sometimes called *siekierociosła* (axe-planes) are a tool type very characteristic of the La Tène Culture. They are distinguished by a socket with a rectangular section and a semicircular blade. Tools of this kind are known from several La Tène Culture settlements in western Lesser Poland: Site 1 in Kraków-Mogiła,[52] Site 17 in Podłęże,

[45] Pieta 2008, Fig. 13/5.

[46] Gebhard 1991, Pls. 20–22.

[47] Gedl 1978, Pl. X/1.

[48] Polenz 1971, 32–34. – Waldhauser 1987, Fig. 4/98–99, 101. – Brandt 2001, 71–72.

[49] Gebhard 1989, 118 and Fig. 45. – Gebhard 1991, 80–81.

[50] Bujna 2003, 81 and Fig. 60A.

[51] Dulęba et al. 2012.

[52] Woźniak 1970, Pl. XXXVIII/6.

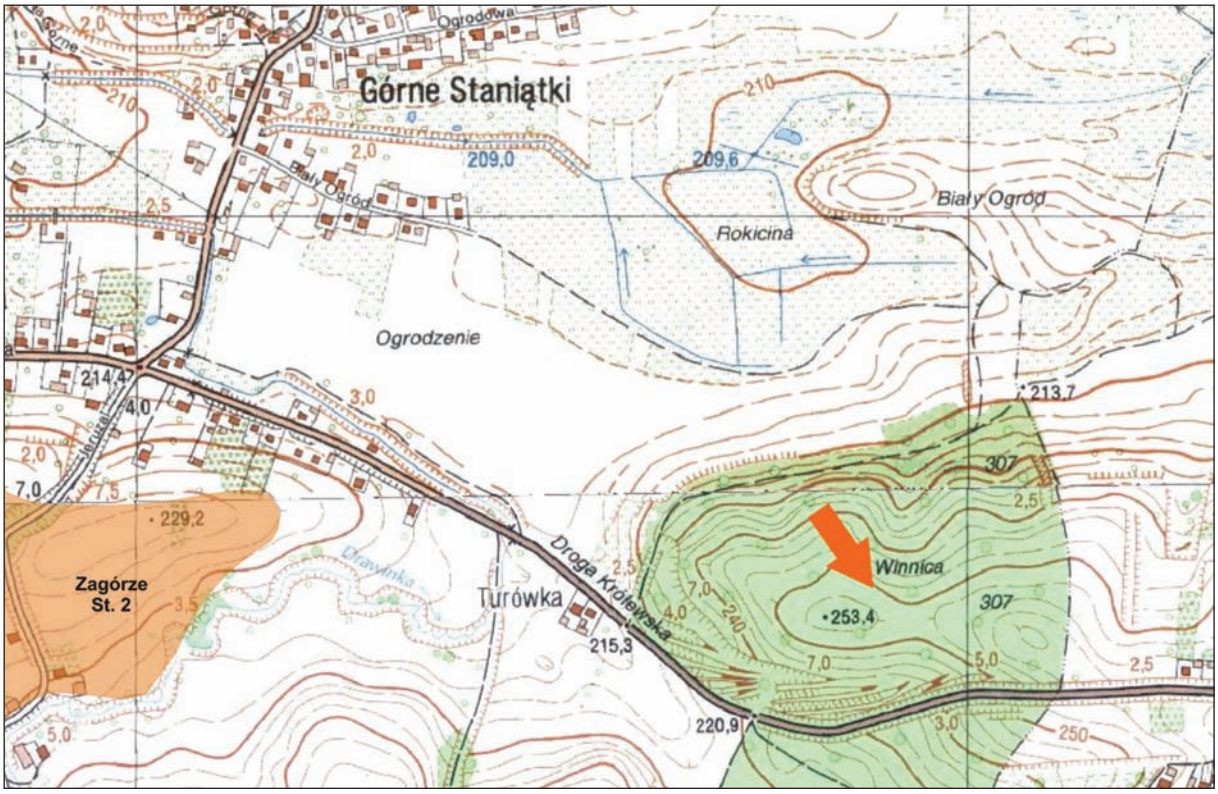

Fig. 10. Staniątki, Wieliczka District, location of find (elaborated: P. Dulęba).

Wieliczka District,[53] the settlement in Barycz, Wieliczka District[54] and feature B/72 located within the settlement in Pełczyska, Pińczów District.[55] Three completely preserved specimens of socketed axes were part of a deposit from Kraków-Wyciąże.[56] In terms of shape, the discussed specimen is most similar to the artefact found in Barycz, considering the fully joined socket and the relatively narrow blade. The way iron socketed axes were fixed to wooden hafts may be reconstructed on the basis of a completely preserved specimen of a tool of this type found at the eponymous site in La Tène, Switzerland.[57]

This type of tool is very often found at La Tène Culture settlement sites almost throughout the time when this culture functioned.[58] Therefore, it is impossible to determine the exact culture the artefact is related to, as it can be related to both the western Lesser Poland enclave of the La Tène Culture functioning there from the end of phase LT B2 to LT C2 and the Tyniec Group dated from LT D1 to phase B1a of the Roman period.[59]

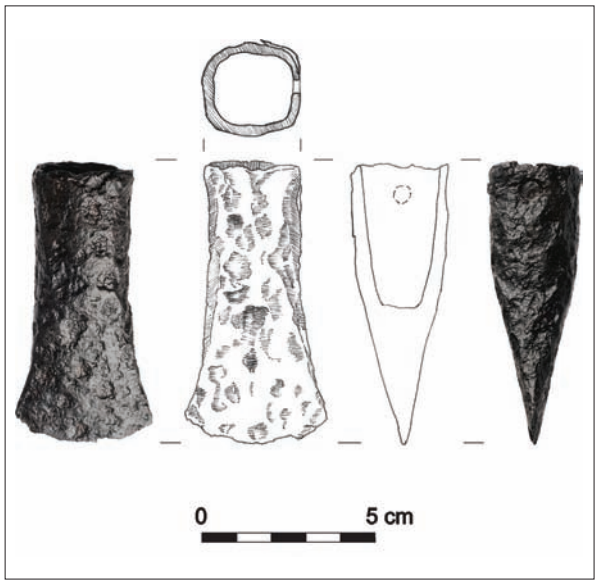

Fig. 11. Staniątki, Wieliczka District, iron axe (drawing: M. Dulęba, photo: P. Dulęba).

[53] Dzięgielewska, Dzięgielewski 2008, Fig. on p. 58.

[54] Reguła 1979, Fig. 4/i.

[55] Rudnicki 1997, Pl. XX/16.

[56] Poleska 2006, Pl. 246/2–4.

[57] Vouga 1923, Pl. XLIII/5.

[58] Jacobi 1974, 28–32. – Meduna 1980, 126.

[59] Dulęba 2009.

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THE CULTURAL SITUATION IN THE EARLY STAGE OF THE YOUNGER PRE-ROMAN PERIOD IN CENTRAL WIELKOPOLSKA. REMARKS ON THE MARGINS OF THE DISCOVERY OF A MIDDLE LA TÈNE BROOCH NEAR POZNAŃ (BĘDLEWO, SITE 20/27)

MILENA TESKA – ARTUR SOBUCKI – MACIEJ KARWOWSKI

Abstract: The process of "Latenization" had a dramatic effect on the interior of the European continent. Its aspects can also be clearly seen in the present-day Wielkopolska region, which, at the threshold of the younger pre-Roman period, lost its earlier uniform nature. This happened because of the numerous interactions between communities that, based on the characteristics of their material activity, were connected with different archaeological entities which, nevertheless, constituted fully equivalent substrates and shaped the settlement situation in that period. It is nowadays assumed that in the early stage of the younger pre-Roman period, central Wielkopolska was subject to "Latenization" by the Jastorf Culture as a result of the direct presence of its representatives. This situation is clearly demonstrated by archaeological material, the quantity of which has significantly increased recently. The new materials also include a middle La Tène brooch from site 20/27 in Będlewo, which represents a variant of Blankenfelde-type brooches, these being particularly characteristic of the Jastorf Culture.

Keywords: "Latenization" process, younger pre-Roman period, central Wielkopolska, Jastorf Culture, Blankenfelde-type brooches, Kożuchów-variant brooches

INTRODUCTION

At the turn of the 3rd and 2nd centuries BC, in the areas of the central European *Barbaricum*, which existed outside of the ecumene of the La Tène Culture, or Celtic tribes, significant civilizational transformations took place. The older cultural model, which dated back to the post-Hallstatt period, underwent an extensive and complex transformation caused by the changes that took place in the area where La Tène Culture settlements were present.[1] The process, known as "Latenization", had a dramatic effect on the interior of the European continent. Its aspects can be clearly seen in the present-day Wielkopolska region, which, at the threshold of the younger pre-Roman period,[2] lost its earlier uniform nature.[3] The region was no longer a cohesive cultural monolith. This happened because of the numerous interactions between communities that, based on the characteristics of their material activity, were connected with different archaeological entities which, nevertheless, constituted fully equivalent substrates and shaped the settlement situation in that period.[4] This is related to the high mobility, commonly observed in Europe, of the peoples that inhabited the continent, both Celtic

Fig. 1. Sites during field prospection (after JADRYCH et al. 2008).

[1] MICHAŁOWSKI, TESKA 2013a, 198.

[2] Overall, the younger pre-Roman period is correlated with the middle and late La Tène periods. – See also HACHMANN 1961. – WOŹNIAK 1979, 148. – DĄBROWSKA 1988, 62.

[3] MICHAŁOWSKI, TESKA 2013b, 34.

[4] MICHAŁOWSKI 2008, 101. – MICHAŁOWSKI, TESKA 2013b, 34.

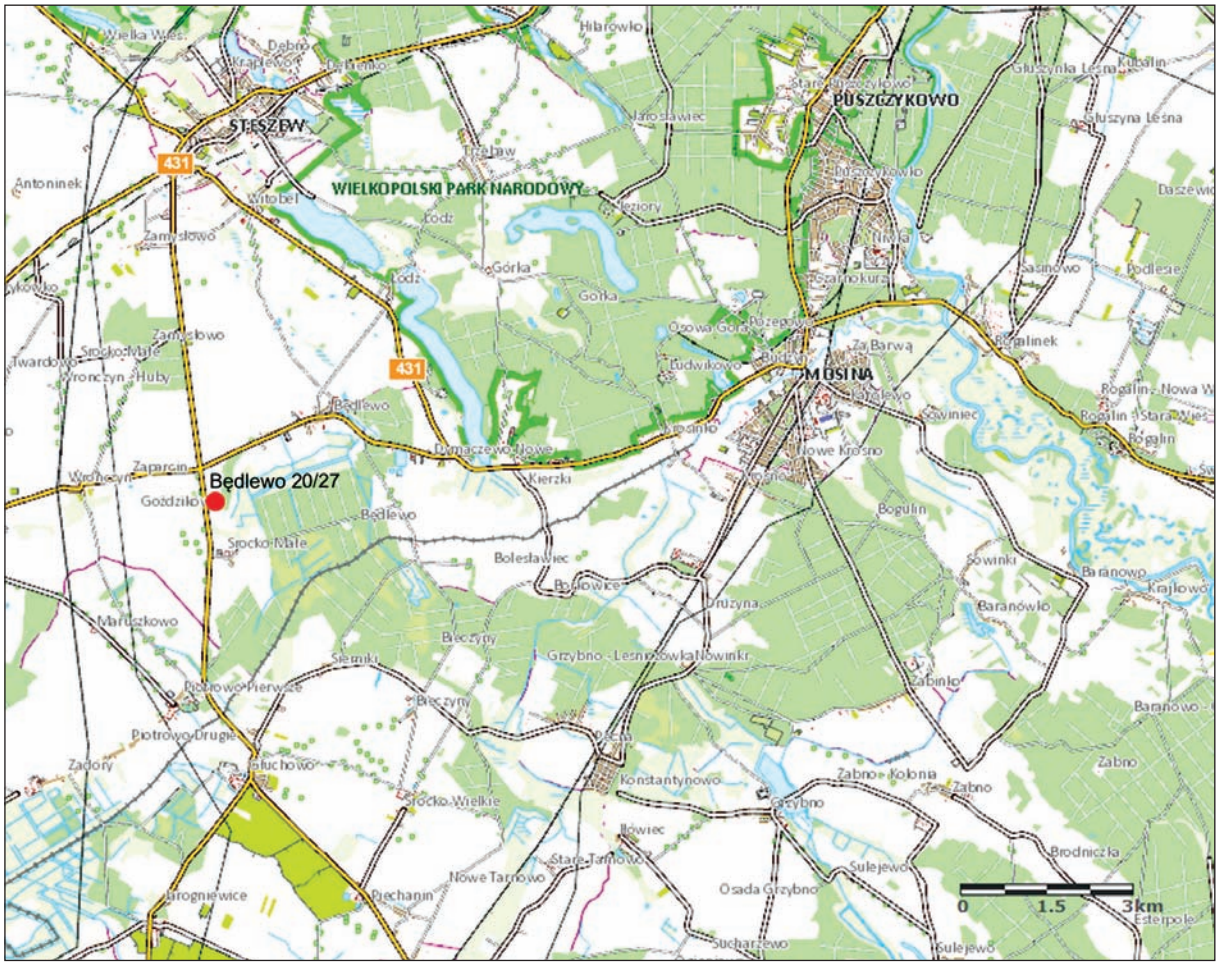

Fig. 2. The location of site 20/27 in the area of the Będlewo land in the municipality of Stęszew, Poznań District (based on: mapy.geoportal.gov.pl).

and Germanic[5] who, in the course of their migrations, often over long distances, carried with them their own traditions and their cultural patterns.[6]

Identification of the aforementioned various civilizational currents which appear to be the basis for the formation of a new model of society here that was based on the La Tène Culture patterns is currently possible not only due to the changed interpretation but most of all due to the increase in the quantity of the sources in the recent years. In particular, the influx of new archaeological materials is the reason why the cultural situation of Wielkopolska in the early stage of the younger pre-Roman period does not match the bilaterally evolutionary model of changes that has for a long time been suggested in the academic discourse.[7] The brooch of the middle La Tène construction found at site no. 20/27 in Będlewo is another example that confirms it.

LOCATION OF THE ARTEFACT

In March 2008, in connection with the planned construction of the S5 express roads between Poznań and Wrocław, exploratory surface and survey examinations were performed in the Wronczyn-Radomicko section,[8] whose total length is 35 km.[9] The first stage of the work consisted in a verification in the field of sites discovered earlier, the so-called archive sites, that were known from works performed in the framework of the APP (Archaeological Photograph of Poland) programme. During that stage, new settlements that have not been identified earlier were found. Later, individual sites were classified for excavations or for monitoring. Eventually, on the planned route of the express road, 82 archaeological sites were registered (Fig. 1), fifty percent of which, exactly 41 sites, of a total surface area of 69 ha, were selected

[5] Michałowski 2004, 164.

[6] Michałowski 2008, 101.

[7] Cf. e.g. Kostrzewski 1955, 188–189. – Godłowski 1985, 14–15. – See also Michałowski 2006, 184. – Michałowski, Teska 2013a, 208. – Michałowski, Teska 2013b, 34.

[8] The examinations were ordered by the General Directorate of National Roads and Motorways in Poznań, with the acceptance of the Provincial Historic Preservation Officer in Poznań and the Manager of the Branch in Leszno.

[9] Jadrych et al. 2008.

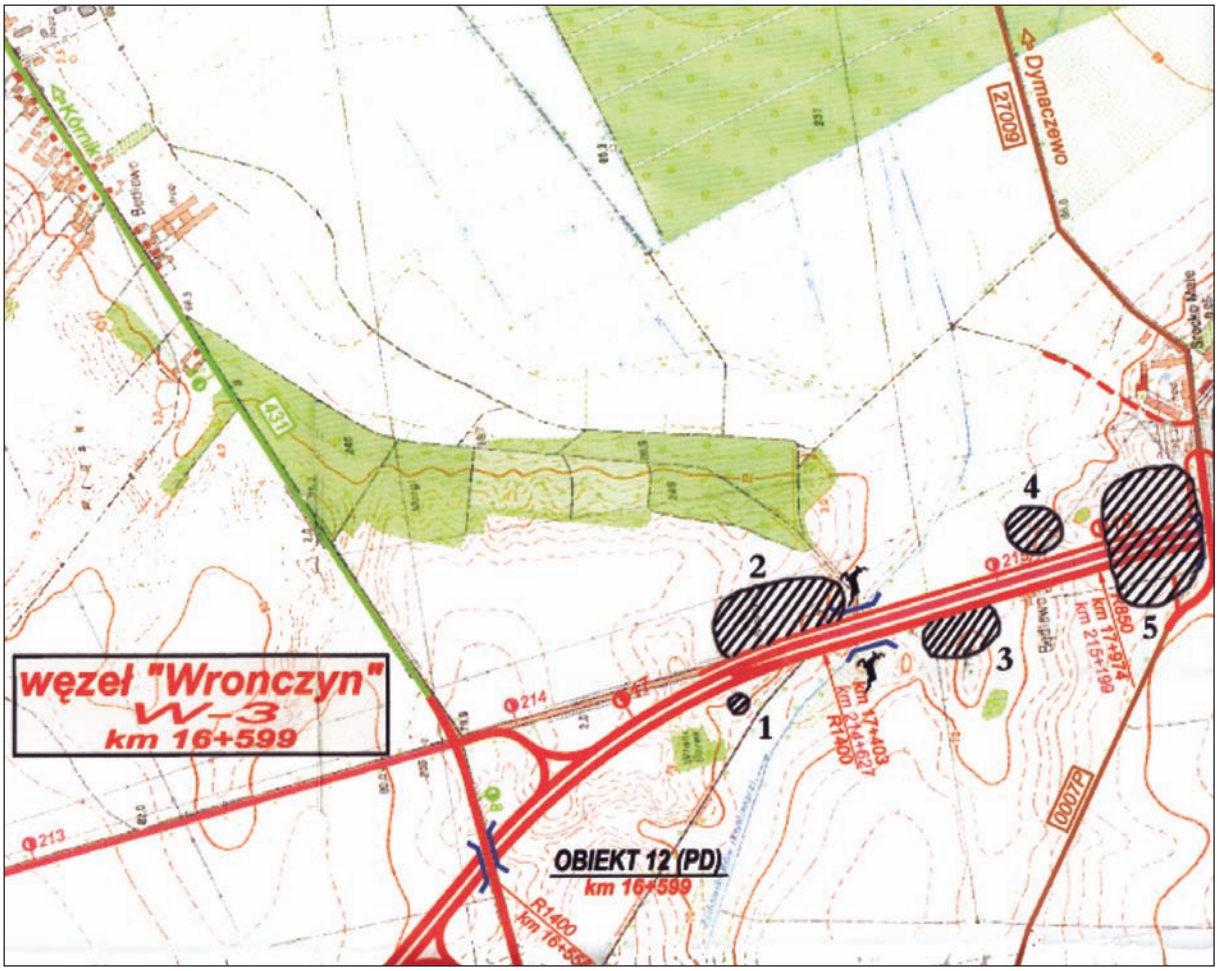

Fig. 3. Location of the site in Będlewo, Stęszew municipality, Poznań District, within the investment project map (1:10,000 scale) for the planned construction of the S-5 express road between Poznań and Wrocław (after Jadrych et al. 2008).

for pre-emptive excavatory examinations.[10] In the course of the examinations, it was found that the clear intensification of settlements in the area in question took place during the younger pre-Roman period, as confirmed by the archaeological material that was collected, especially in the form of pottery fragments.

Będlewo is a small village located about 30 km to the southwest of Poznań, within the administrative borders of the Stęszew municipality, in the Poznań district of the Wielkopolskie province. In Będlewo there are two archive sites designated as 20/108 and 27/115[11] in the APP as no. 56–25. The objectives of the examinations conducted here in March 2008[12] included confirmation that the aforementioned archive sites are in fact a single archaeological site that existed under the Będlewo name, i.e. site no. 20/27 (Fig. 2). On the other hand, on the route of the planned road construction project, the site was designated with number 2 (Fig. 3).

The site in question is located on a slope of a small valley, in a slightly exposed area. The materials related to the horizon of the younger pre-Roman period,[13] i.e. 197 pottery fragments, mostly in the form of thickened or faceted edges of casts, and a brooch of the middle La Tène construction (Fig. 4), were found in a non-developed area in an open arable field, within the settlement identified here,[14] which was preliminarily connected with population of Przeworsk Culture.[15] They were characterized by high density and a common centre.

[10] Jadrych et al. 2008, 2.

[11] Site number in the locality/site number in the area.

[12] The examinations were performed by Mgr Artur Sobucki and Mgr Tomasz Skorupka.

[13] Next to those materials at the site, objects were found that represented other chronological periods.

[14] The presence of a burial ground could also be suspected, see Jadrych et al. 2008, 8.

[15] Jadrych et al. 2008, 8. – However, while the general chronological identification raises no objections, the cultural association is highly uncertain.

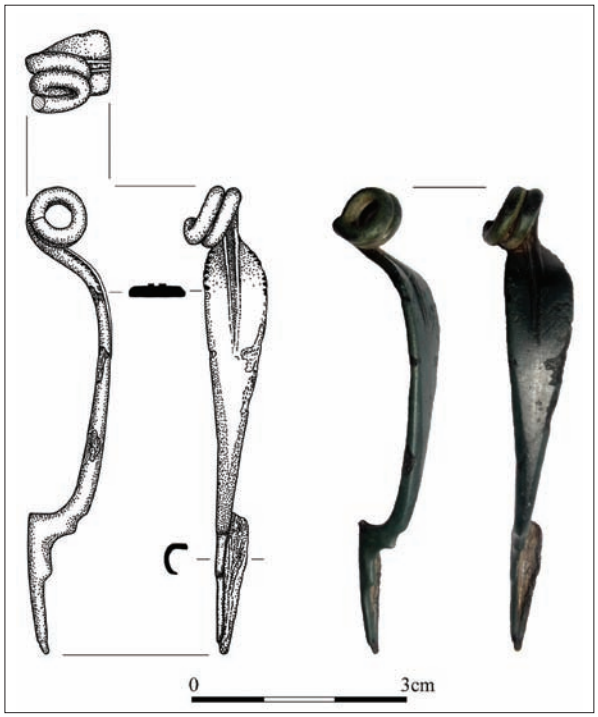

Fig. 4. A brown brooch with the mid-La Tène design from Będlewo, site 20/27 (drawing: I. Dębska, photo: M. Teska).

Fig. 5. The upper part of the brooch from Będlewo, view from the inner side (photo: W. Wątły; the photo was taken with a digital microscope VHX-5000).

Fig. 6. The upper part of the brooch from Będlewo, view from the outer side (photo: W. Wątły; the photo was taken with a digital microscope VHX-5000).

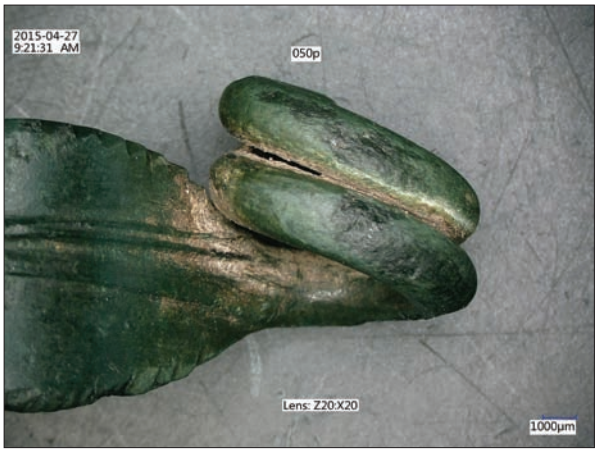

Fig. 7. The ornamentation of the upper part of the bow of the brooch found in Będlewo (photo: W. Wątły; the photo was taken with a digital microscope VHX-5000).

CHARACTERISTICS OF THE BROOCH – GENERAL PARAMETERS

The brooch from Będlewo is made of bronze.[16] Its wide bow of flat cross-section was preserved (Fig. 4). The bow is quite significantly arched. Moreover, the pin rest, with a trace of a broken foot (Fig. 4), and the spring, which originally probably had six windings and an external chord, were partly preserved. The brooch is 6.5 cm long. The maximum width of the bow is 0.9 cm in the upper part. The maximum thickness of the bow is 0.3 cm, in the lower part. The brooch from Będlewo had no engraved ornament. However, it has a kind of ornament for which direct analogies have so far not been identified. On both edges of the bow, over a distance of approx. 0.8 cm, there are visible notches (this is not an engraved ornament), which resemble fluting (Figs. 5–7). Moreover, on the bow, two small longitudinal ribs are preserved in its upper part (Figs. 4, 6, 7). Only when the brooch was inspected with the VHX-5000 digital microscope (Keyence, Belgium), was it noted that one of the ribs is also branched at the base of the spring (Fig. 7). The surface of the lower part of the bow has rubbed off, which eliminated the protrusion of the ribs (Fig. 8).

The analysed object, of high-quality execution, definitely differs from the local standards of jewellery, or parts of costume and has no counterparts among artefacts of domestic origins. In this case the diagnostic element would almost certainly be the proper foot of the brooch, which was not preserved. The traces of the fastening of the foot, which can be seen with the naked eye, located on the inner and outer side of the bow, take the form of an intact surface (Figs. 5 and 6). There are no significant differences in the chemical composition between those surfaces and other parts of the brooch, which demonstrates that the foot was not permanently fixed to the bow

[16] For a detailed analysis of the chemical composition, see the contribution by Niedzielski in this volume.

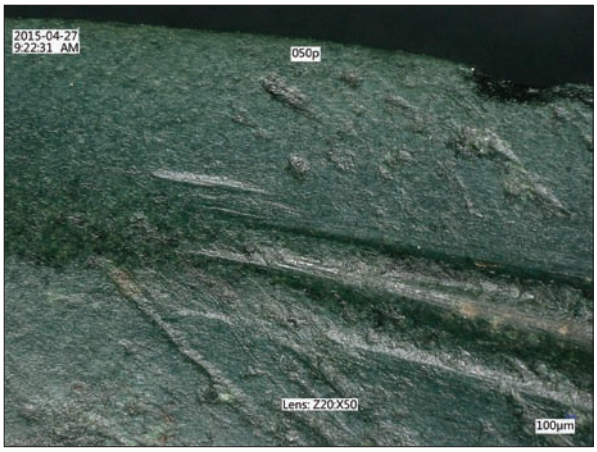

Fig. 8. The plastic ornament in the central part of the bow of the brooch found in Będlewo (photo: W. Wątły; the photo was taken with a digital microscope VHX-5000).

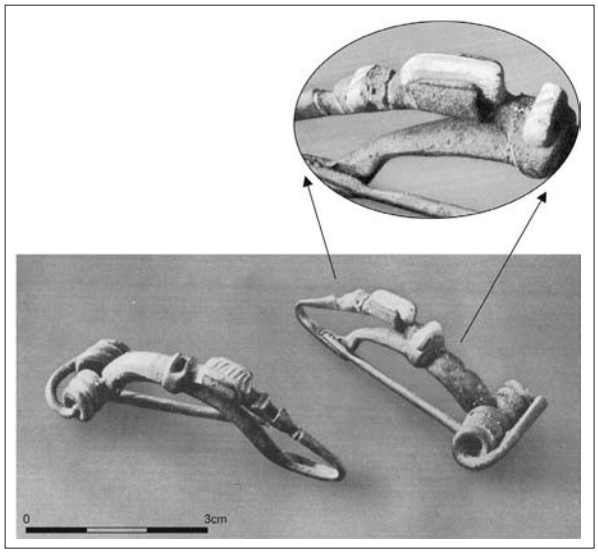

Fig. 9. Blankenfelde brooches from grave no. 8 in the eponymous cemetery in Blankenfelde (after Kropf 1938).

by welding or soldering.[17] Due to the above, and also with reference to the form of the brooch and to the parameters of the bow, one can indicate the likelihood of this with high probability.

TYPOLOGICAL ANALYSIS

In spite of the general similarity of this brooch to brooches of the Nauheim type,[18] an accurate analysis of all perceptible stylistic and structural characteristics makes it possible to conclude that this particular brooch is a variant of brooches of the Blankenfelde type. Such objects are especially characteristic of the Jastorf Culture. Their typological name was first used in the literature by J. Brandt[19] and is connected with the discovery of two brooches in a Jastorf Culture grave in the Blankenfelde burial ground in the northern outskirts of present-day Berlin (Fig. 9).[20]

With regard to typology, the brooches clearly resemble the brooches with thickened bows of the Mötschwil type,[21] or group 1 according to R. Gebhard's systematics, which were common in the La Tène Culture.[22] They are among the most common brooches of the middle La Tène construction, i.e. ones with a bent-back foot connected to the bow with a clasp. A special characteristic property of all Blankenfelde-type brooches is the presence of rectangular cells in the upper part of the foot and on the strip-like clasp. Those elements were used to place small inserts made of coral, which is confirmed in well-preserved artefacts (Figs. 9–10). Unfortunately in the case of

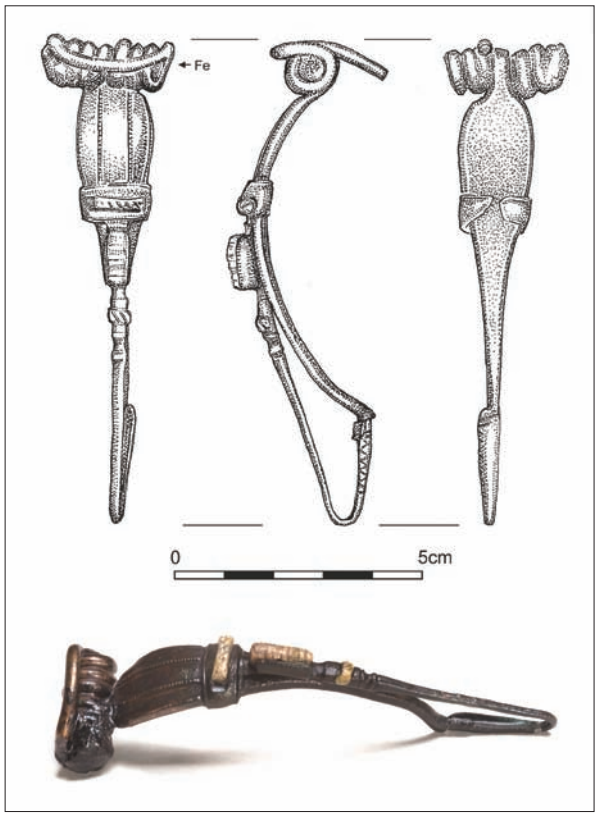

Fig. 10. A brooch of the Kożuchów variant from the eponymous cemetery in Kożuchów (drawing: T. Demidziuk, photo: T. Gąsior).

the brooch from Będlewo, the bent-back foot was not preserved, but its existence is confirmed by both the traces of breakage at the end of the pin rest and, most of all, the remains of the wide clasp clearly seen in the upper part of the bow.

The structural characteristic that distinguished Blankenfelde-type brooches from Mötschwil-type

[17] See the contribution by Niedzielski in this volume.

[18] The brooch from Będlewo was initially identified as a Nauheim type brooch, see Jadrych et al. 2008, 8.

[19] Brandt 2001, 87–88, 330 and Map 8, Pl. 17/4.

[20] Kropf 1938, 111–112 and Figs. 18–20.

[21] See Hodson 1968, 38. – Márton 2004.

[22] Gebhard 1991, 7–8 and Fig. 1/1.

Fig. 11. A brooch of the Blankenfelde type from grave no. 22 in the cemetery in Domaniowice (photo: J. Orlicka-Jasnoch).

brooches is the design of the spring. One of the typological determinants of Mötschwil-type brooches is four-winding (2 × 2 windings) springs with an external chord, while in all known cases Blankenfelde-type brooches have six windings (2 × 3 windings), also with an external chord. Some of those springs have reinforcing iron axles (Fig. 10). Based on the preserved parts of the brooch from Będlewo, one can clearly conclude that it had more than two windings on at least one side.

The brooch from Będlewo has a significant stylistic feature, which so far has been found in two "classical" brooches of the Blankenfelde type. The feature is the shape of the bow, which is clearly widened and flat, instead of being characteristically thicker and having an oval cross-section. Two small brooches of the Blankenfelde type, one found in the Jastorf Culture burial ground in Domaniowice in Lower Silesia (Fig. 11),[23] and another one in the La Tène Culture settlement in Dašice in eastern Bohemia,[24] have bows of this shape. On the other hand, this feature is found in most brooches which have recently been described as brooches of the Kożuchów variant.[25] Those brooches are of the same design as "classical" Blankenfelde-type brooches and have the same arrangement of the ornamental elements made from a coral application, although they are almost exactly twice the size. While the "classical" variant comprises only small brooches, usually less than 5 cm long, the length of the brooches of the Kożuchów type is in all known cases equal to approx. 10 cm.

Of special importance to the discussion of the artefacts from Będlewo is the fact that the bows of some brooches of the Kożuchów variant are flat and clearly widened and on some there are small longitudinal ribs (Fig. 10). The bow of the brooch from Będlewo has all these features but is definitely smaller: its size is close to the brooches of the "classical" variant. On the bow of an analogous brooch from Domaniowice, traces of longitudinal ribs were not preserved (Fig. 11). This is similar to the brooches of the Kożuchów variant, whose bows have two different forms: thicker with an oval cross-section or widened with a flat cross-section. Five out of eight known Blankenfelde-type brooches of the "classical" variant are thicker and have oval cross-sections and the bows of the artefacts from Będlewo, Domaniowice and Dašice are the remaining three cases with widened bows and flat cross-sections. Of note is also the fact that those "classical" brooches of the Blankenfelde type were found the furthest to the east (Fig. 12).

REGIONAL ANALYSIS

"Classical" brooches of the Blankenfelde type have so far come almost only from the zone of the Jastorf Culture settlement (Fig. 12). Besides the two aforementioned fully preserved brooches from grave no. 8 on the Blankenfelde burial ground in Berlin's Pankow district,[26] a partly preserved brooch was found in a grave in Bücknitz-Herrenmühle in Brandenburg[27] and the origin of two others is unclear: presumably they come from destroyed sites in Dorna and in Wittenberg in Saxony-Anhalt.[28] Clearly geographically isolated from this cluster of artefacts is the aforementioned burial ground in Domaniowice in Lower Silesia where, in grave no. 22, another analogous brooch was discovered (Fig. 11). This is an area of the Guben Group, which was the southeastern periphery of the Jastorf Culture. This is where the site of the same time period with brooches of the Kożuchów variant is found. The only find of a "classical" brooch of the Blankenfelde type from the area of La Tène Culture was discovered during surface prospection in 2015 at the aforementioned settlement in Dašice in eastern Bohemia.[29]

Brooches of the Kożuchów variant are known both from the Jastorf Culture and the La Tène Culture areas (Fig. 12). The best-preserved artefact of this variant is the brooch found in Kożuchów in Lower Silesia itself (Fig. 10).[30] This is a brooch with

[23] Kołodziejski 1973, Fig. 7/E. – We would like to thank Mgr Julia Orlicka-Jasnoch for providing access to the unpublished documentation of the brooch from Domaniowice, which is kept at the Archaeological Museum of the mid-Odra Region in Zielona Góra.

[24] We would like to thank Dr Jan Jílek for the information about the unpublished brooch from Dašice, kept at the East Bohemian Museum in Pardubice.

[25] Karwowski 2017.

[26] Kropf 1938, 111–112 and Figs. 18–20.

[27] Gustavs, Gustavs 1976, 109 and Fig. 34/H.

[28] Müller 1985, 76, 173–174 and Figs. 77/13, 89/13.

[29] Unpublished material, information from Jan Jílek, Pardubice.

[30] Karwowski 2017, 191–192 and Figs. 1, 2. – See also Beltz 1911, 772, No. 262. – Kostrzewski 1919, 30 and Fig. 14/a. – Jahn 1924, 21 and Fig. 4. – Tackenberg 1925, 6, 93 and Pl. 3/5. – We would like to thank Dr Krzysztof Demidziuk and Dr Paweł Madera for providing access to the documentation of this artefact, which is kept at the Archaeological Department of the City Museum in Wrocław.

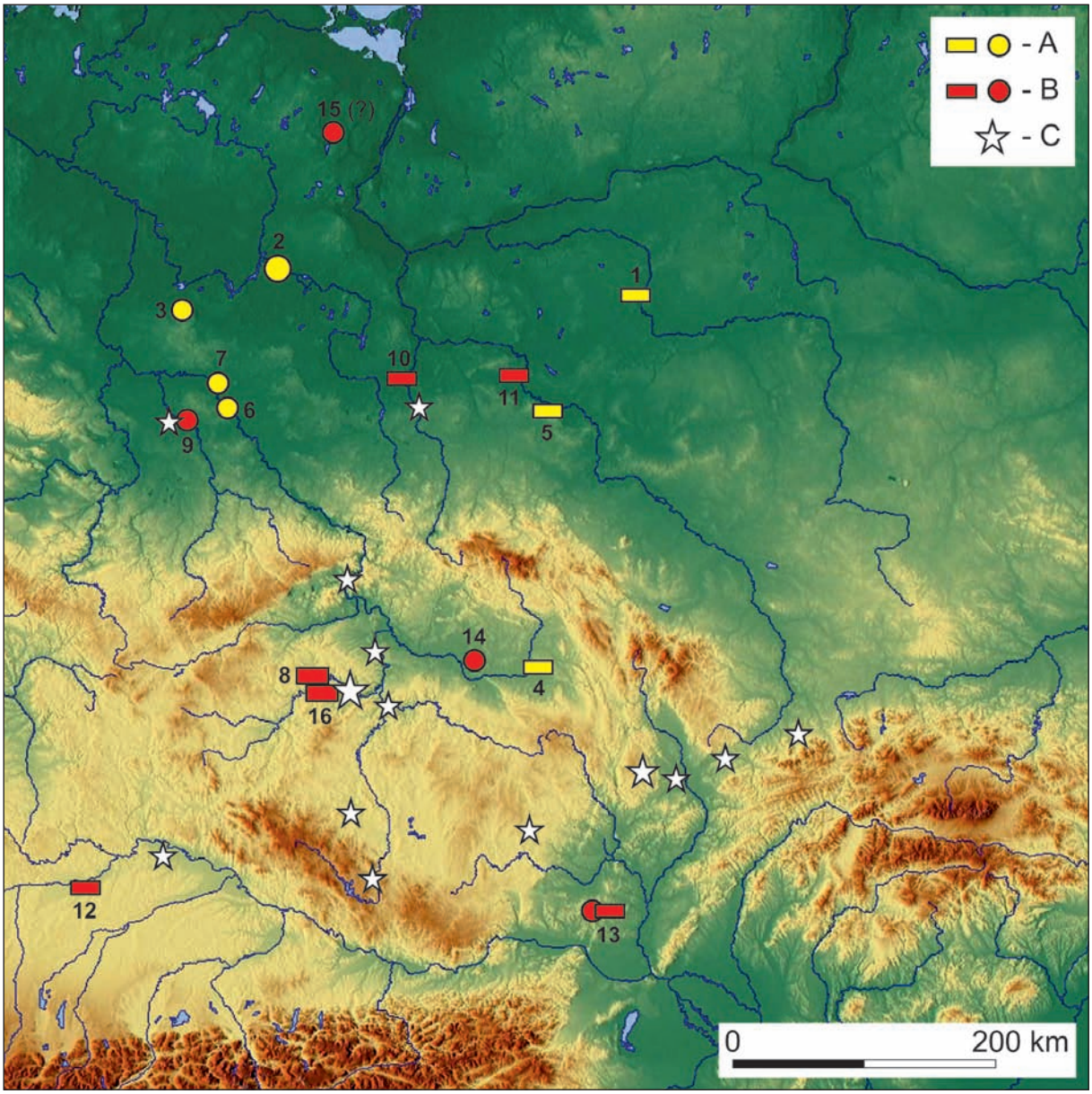

Fig. 12. Presence of brooches of the types and variants discussed in the text. – A: "Classical" variant of the Blankenfelde type; round signatures: thickened bows with oval cross-sections; rectangular signatures: wider bows with flat cross-sections. – 1. Będlewo, Poznań District (PL). – 2. Blankenfelde, Berlin-Pankow District (GER). – 3. Bücknitz-Herrenmühle, Potsdam-Mittelmark District (GER). – 4. Dašice, Pardubice District (CZ). – 5. Domaniowice, Głogów District (PL). – 6. Dorna, Wittenberg District (GER). – 7. Wittenberg, Wittenberg District (GER). – B: Kożuchów variant; round signatures: thickened bows with oval cross-sections; rectangular signatures: wider bows with flat cross-sections. – 8. Chlum u Rakovníka, Rakovník District (CZ). – 9. Gräfenhainichen, Wittenberg District (GER). – 10. Guben, Spree-Neiße District (GER). – 11. Kożuchów, Nowa Sól District (PL). – 12. Manching, Pfaffenhofen an der Ilm District (GER). – 13. Oberleiserberg, Korneuburg District (AT). – 14. Sány, Nymburk District (CZ). – 15. Schmiedeberg-Aalgast, Uckermark District (GER). – 16. Stradonice, Beroun District (CZ). – C: "Boii" brooches: list of sites see Čižmář, Meduna 2012, Fig. 1 (graphics: M. Karwowski, base map: Free Software Foundation).

a widened bow and a flat cross-section, and also with four longitudinal ribs on the bow. Two other brooches of the Kożuchów variant also come from the Jastorf Culture settlement area. One of them was supposedly discovered in Guben in Brandenburg and was only mentioned by J. Kostrzewski.[31] The other was a part of the inventory of grave no. 115 in the burial ground in Gräfenhainichen in Saxony-Anhalt.[32]

In the Jastorf Culture zone, a brooch similar to those described here is the artefact from grave no. 31 in Schmiedeberg-Aalgast in Brandenburg.[33] However, that brooch, as can be concluded from the published

[31] Kostrzewski 1919, 30. – See also Brandt 2001, 88.

[32] Gustavs, Gustavs 1976, 92–93, 109 and Figs. 27/115/2; 32/B–D.

[33] von der Hagen 1925, 86 and Fig. 9.

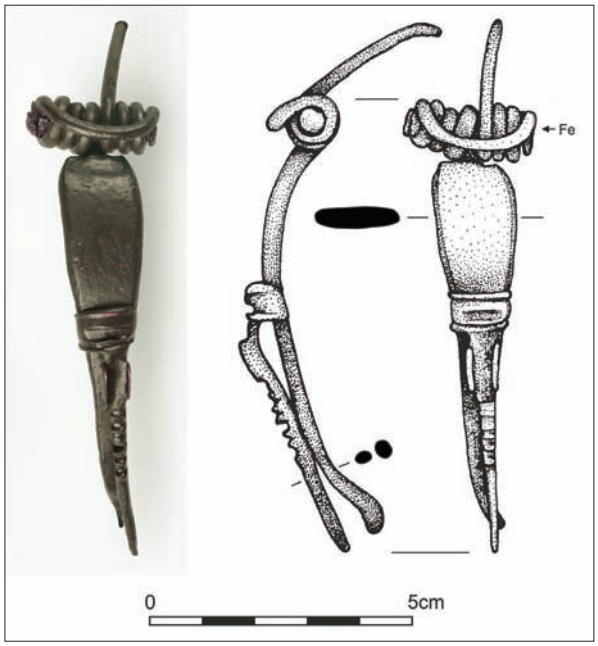

Fig. 13. A brooch of the Kożuchów variant from Chlum u Rakovníka (drawing: E. Smagur, photo: J. Vaněk).

illustration, has a fairly narrow bow and a spring with only four windings. Also the layout of the fastening cells on the clasp and the foot, and the decorative applications are rather unusual. Thus, this brooch should probably be considered rather closer to the Mötschwil type, which is very rare in the Jastorf Culture.

The clearly more numerous series of brooches of the Kożuchów variant was found in the area of the La Tène Culture settlement. The most evident cluster is formed by four brooches found in two nearby sites in the western part of central Bohemia: two in the Stradonice oppidum[34] and two in Chlum u Rakovníka (Fig. 13).[35] All four have widened bows with flat cross-sections. On the bows of both brooches from Stradonice, longitudinal ribs were preserved, while the bows of both brooches from Chlum are smooth. Single brooches of the Kożuchów variant were found in the eastern part of central Bohemia, in the settlement in Sány,[36] and in Upper Bavaria, in the Manching oppidum.[37] Two more brooches were discovered in a hilltop settlement on Oberleiserberg in Lower Austria (Fig. 14).[38] The bows of the brooch from Manching and one of the brooches from Oberleiserberg are widened and have flat cross-sections; also, both have four longitudinal ribs.

Brooches that are clearly stylistically related to the brooches of the Kożuchów variant and that certainly have a local nature in the environment of La Tène culture in Bohemia and Moravia are the so-called shield-bow brooches.[39] Due to the area of their presence that nearly matches the area covered by the so-called Boii coinage,[40] those brooches are also described as "Boii" brooches (Fig. 12).[41] The key difference between the brooches of the Kożuchów variant and the "Boii" brooches is the design of the widened bow, which in the former is cast and massive, and in the latter is made of a flattened sheet of metal. Moreover, the bow of the latter usually does not widen gradually toward the top, but instead is rectangular, trapezoidal or, more rarely, oval above the clasp that is wrapped around it (hence the term "shield-bow brooches"). An important feature shared by the "Boii" brooches and the Blankenfelde-type brooches of both variants is the frequent presence on the foot of a rectangular cell in which a coral incrustation was placed. As mentioned before, this is not typical of the La Tène Culture. The links between the "Boii" brooches and the Jastorf Culture are also supported by two other brooches found in the Jastorf Culture area: in Gräfenhainichen in Saxony-Anhalt,[42] where the aforementioned brooch of the Kożuchów variant was also found, and in Sadzarzewice in the Polish part of Lower Lusatia.[43] Together with an individual artefact from Egglfing in Bavaria,[44] these are the only brooches coming from outside of the "Boii area" of La Tène culture in central Europe.

CHRONOLOGICAL ANALYSIS

Brooches of the Blankenfelde type, of both the "classical" and the Kożuchów variant, cannot be clearly and precisely dated.[45] Stylistically, they undoubtedly belong to a broad range of brooches of middle La Tène construction with thickened bows, similar to the Mötschwil type. It is assumed that in the extensive areas of the La Tène Culture such brooches are some of the most characteristic chronological determinants of the LT C2 phase.[46] Brooches of the Blankenfelde type found in well-dated contexts, i.e. from graves, are known only from the area of the Jastorf Culture. In practically all cases, those groups are dated quite

[34] Píč 1903, 32 and Pl. 3/25–26. – Břeň 1964, 219 and Pl. 5/274. – We would like to thank Dr Pavel Sankot for the opportunity to perform an autopsy on one of those artefacts, which is kept in the collections of the National Museum in Prague (inv. no. 80182).

[35] Karwowski 2017, 193–194 and Fig. 5/1. – Unpublished material, archive of Jiří Militký, Prague.

[36] Karwowski 2017, 194 and Fig. 6/1.

[37] Gebhard 1991, 108 and Pl. 2/25.

[38] Karwowski 2012, Fig. 25/Left. – Karwowski 2017, 194 and Figs. 5/2–3, 6/2.

[39] Břeň 1964, 215–216 and Pl. 4/B4.

[40] See e.g. Militký 2008, 122. – Militký, Karwowski 2013, 19–26.

[41] Čižmář, Meduna 2012. – See also Werner 1961, 146.

[42] Gustavs, Gustavs 1976, 87, 109–111 and Fig. 34/A.

[43] Jentsch 1896, 10 and Pl. 1/4. – Gustavs, Gustavs 1976, 109 and Fig. 34/B.

[44] Uenze 2005, 58 and Fig. 2/17.

[45] See Karwowski 2017, 194–195.

[46] See Márton 2004, 279.

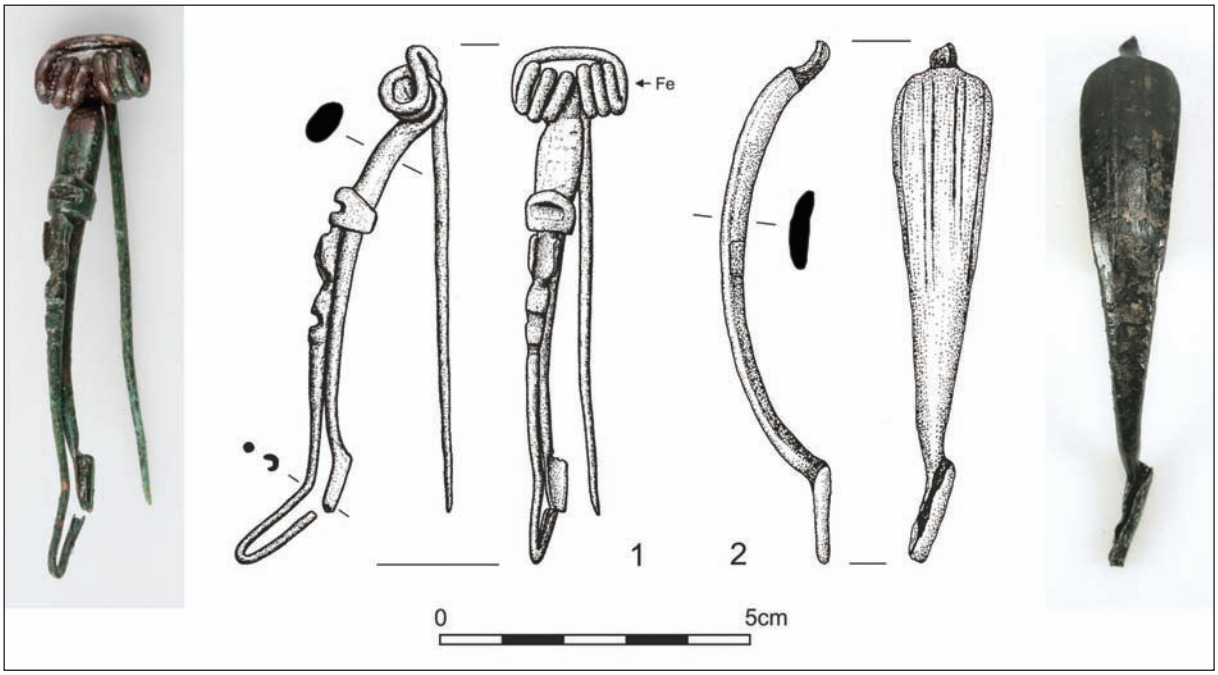

Fig. 14. A brooch of the Kożuchów variant from Oberleiserberg (drawing: E. Smagur, photo: G. Gattinger and M. Karwowski).

broadly, within phases LT C2–D1,[47] i.e. the so-called oppida period in the La Tène Culture. The general possibility of such a dating is confirmed by the artefacts found in the oppida Stradonice and Manching, and in the hilltop settlement on Oberleiserberg.

However, the issue of the cultural association of the brooches described here and their typological and stylistic relations appears a little more complex. The brooches of the "classical" variant were found – with one exception only – in the Jastorf Culture area, which leads to the clear conclusion that they are local products. An additional argument in support of this conclusion is the presence of the coral incrustation, which is a very characteristic way to decorate brooches in the Jastorf Culture,[48] and is only rarely present in artefacts from the La Tène Culture areas. Thus, this appears to confirm the "Jastorf" origin of the brooches of the Kożuchów variant. Given the current status of the research and the small number of known artefacts, this issue remains unresolved. It should be noted, however, that in many areas located to the north of the area of La Tène Culture settlement in central Europe, brooches of the Mötschwil type, which are typologically related to the Blankenfelde-type brooches, are found but rarely. This is true not only of the Jastorf Culture but also of the Oksywie Culture. In the Przeworsk Culture, on the other hand, the number of such artefacts is significantly larger.[49]

CULTURAL BACKGROUND

Archaeological examinations of sites dating back to the younger pre-Roman period in Wielkopolska have a fairly long history.[50] Notes describing materials dated to that chronological stage can be found in archaeological literature starting from the 19th century.[51] Unfortunately, the artefacts presented in those texts were only the result of accidental discoveries and not of planned archaeological works. Nevertheless, they are the foundation for future attempts at forming more general approaches to the study of the unique characteristics of the artefacts that were found. However, a particularly large impact on the perception of the younger pre-Roman period was made by the typological and chronological findings of J. Kostrzewski,[52] which to this day have not lost their pertinence. Yet, as a result of his work, the need for in-depth research into the pre-Roman period dissipated for a long time. The significant increase in the materials that occurred in the 1950s as a result of the examinations conducted at large necropolises of the Przeworsk Culture, such as Wymysłowo[53] and Młodzikowo,[54] and at the Kalisz-Piwonice settlement,[55] resulted,

[47] Brandt 2001, 330.

[48] See Müller 1985, 72–76. – Brandt 2001, 73–89.

[49] Maciałowicz 2015, 279–282 and Figs. 5–6.

[50] For more on this topic, see Michałowski, Teska 2013a.

[51] See e.g. Undset 1882. – Blume 1909. – Blume 1911. – Blume 1915. – Erzepki, Kostrzewski 1914. – Kostrzewski 1919.

[52] See Kostrzewski 1919.

[53] Jasnosz 1952.

[54] Dymaczewski 1958.

[55] Dąbrowski 1958.

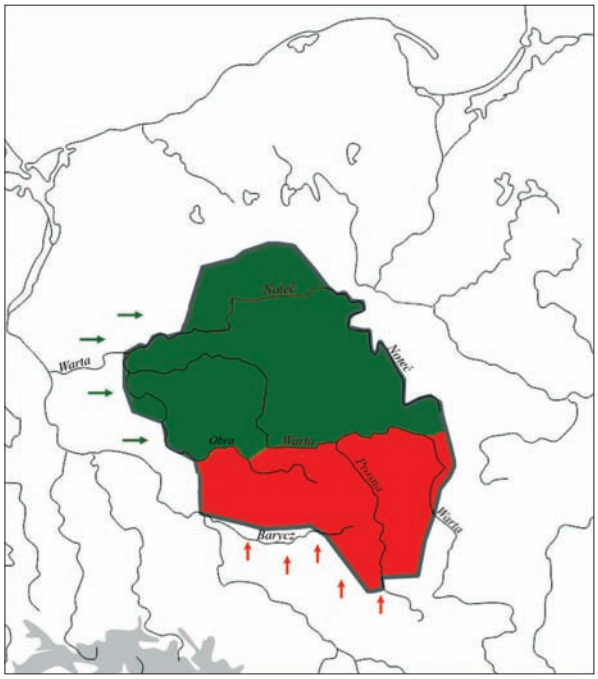

Fig. 15. The cultural situation of Wielkopolska in the early younger pre-Roman period (phase A1), with indication of the areas of possible latenization of this region by communities with Jastorf Culture traditions (green) or Przeworsk Culture traditions (red) (graphics: M. Teska).

along with the earlier works by J. Kostrzewski,[56] in a final systematization of the relevant knowledge. It became the starting point for the interpretation of the cultural changes that took place in Wielkopolska in that period, forming reference points for all studies on the pre-Roman period that were performed later. In the light of this knowledge, the period in question appears to be the time of the early "Latenized" stage of the Przeworsk Culture that developed uninterrupted into the period of Roman influences, which was regarded as a kind of a continuum of the evolutionary development of the local communities.[57]

A re-evaluation of the approach to the younger pre-Roman period and, basically, a return to the earlier concepts of J. Kostrzewski,[58] has been observed since the 1980s. At that time, the importance of the "western Germanic" component, i.e. the component that is currently connected with the Jastorf Culture was emphasized again[59] in order to understand the cultural situation of Wielkopolska at the start of the pre-Roman period and in its early stage (Fig. 15). For a long time, especially after World War II, this aspect was marginalized and the presence of materials connected with the so-called Jastorf civilization[60] was reduced to imported goods,[61] present in both late Pomeranian[62] and early Przeworsk groups.[63]

The sharp increase in the quantity of materials coming from excavations conducted at sites of large road, pipeline, and railroad construction projects in Wielkopolska performed at the turn of the 21st century, became the basis for a return to the discussion on the model of formation of Wielkopolska's communities in the last three centuries BC (Fig. 15). This is because a reconstruction of the dynamics of the spread of the carriers of the Jastorf Culture traditions, not only in northern or central Wielkopolska, but also in central Poland, is mentioned more and more frequently in academic discussions in the context of the cultural changes that took place at the turn of the older and younger pre-Roman period,[64] in stage HD3–A1 (=LT B2 – LT C1–C2), and in the early stage of that period – phase A1 (=LT C1–C2). This appears to be especially important from the point of view of the region in question where the oldest Przeworsk Culture settlements are surprisingly poorly visible[65] and are connected with loose discoveries of a random nature.[66] It should be emphasized that materials that have so far been linked to the Przeworsk Culture, due to their chronological position, in essence can be linked to other groups as well. This is true, for example, of early brooches of middle La Tène construction, which are also present in inventories from "Latenized" phases of the Jastorf Culture.[67] Increased numbers of Przeworsk Culture settlements in central Wielkopolska are noticeable only in the central stage of the younger pre-Roman period – A2 (=LT D1),[68] when a slow disappearance of the Jastorf Culture structures was also observed.[69]

Unlike sites related to the Przeworsk Culture, sites of the Jastorf Culture or containing elements of that group (Fig. 16), connected with the initial phase of the younger pre-Roman period in Wielkopolska, are fairly well preserved. In central Wielkopolska, they are grouped around the central Warta cluster,[70] which is located along the central part of the Warta River and its tributaries, and confirm the eastern expansion

[56] Kostrzewski 1914. – Kostrzewski 1923.

[57] Cf. Jasnosz 1972. – Machajewski 1986.

[58] Kostrzewski 1914, 109–110. – Kostrzewski 1919, 341. – Kostrzewski 1923, 143–145.

[59] See Machajewski 1986, 274, 281.

[60] Schwantes 1950.

[61] E.g. Wołągiewicz 1979, 36.

[62] Cf. Kaczmarek 1999, 149–150.

[63] See e.g. Dąbrowska 1988, 192–204. – Bednarczyk, Sujecka 2004, 419.

[64] See e.g. Makiewicz 2004. – Sobucki, Woźniak 2004. – Dąbrowska, Woźniak 2005. – Michałowski 2006. – Woźniak 2007. – Jurkiewicz, Machajewski 2008. – Michałowski 2008. – Grygiel 2013. – Machajewski 2013. – Michałowski 2013. – Michałowski 2014. – Teska 2014.

[65] Cf. Godłowski 1985, 16.

[66] Michałowski 2008, 93. – Żychliński, Teska 2017, 256–258.

[67] See Hachmann 1961, 234. – Seyer 1982, 18, 19, 68.

[68] Teska, Michałowski 2017.

[69] Michałowski 2008, 102.

[70] Michałowski 2006, 184.

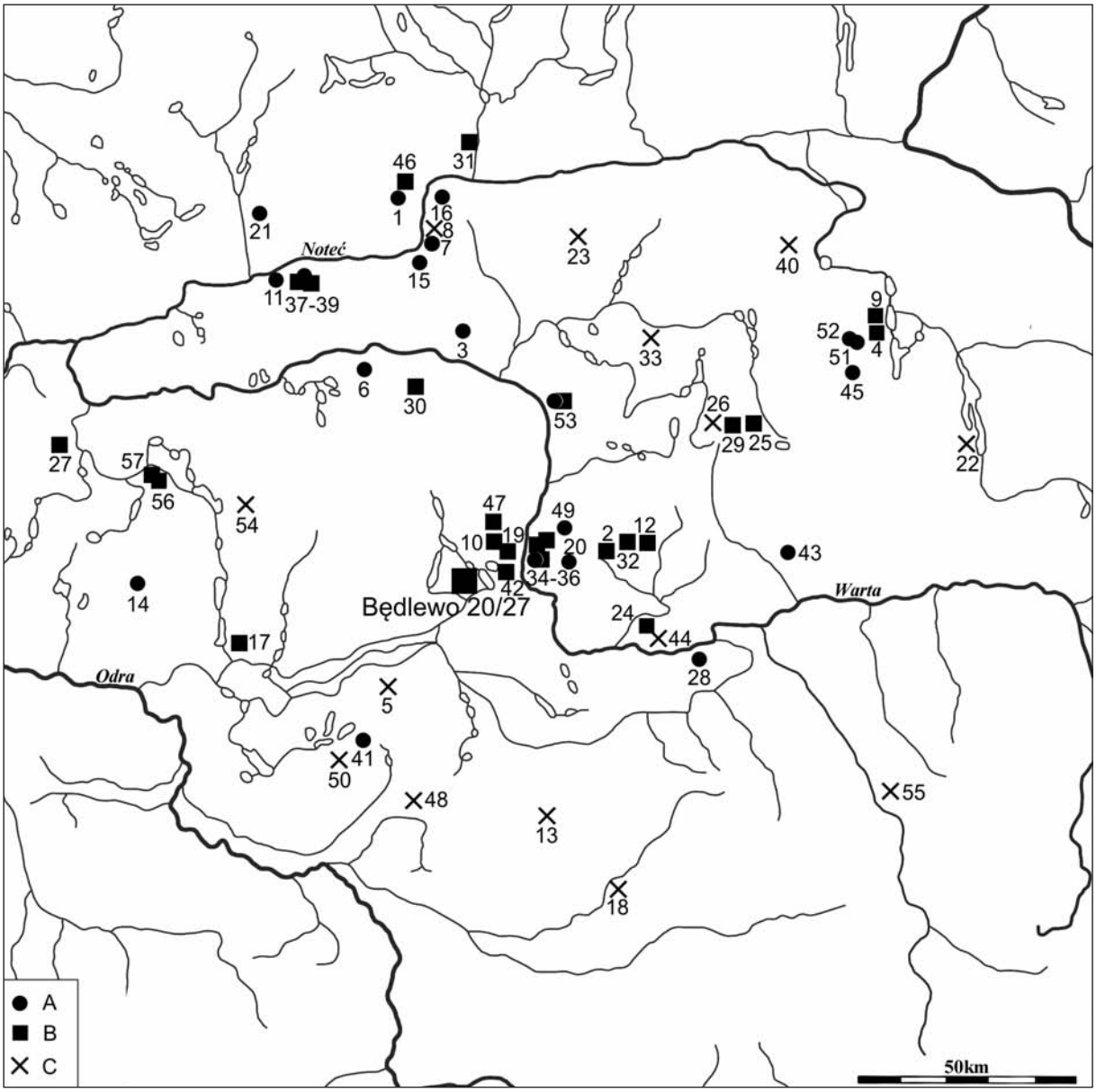

Fig. 16. The location of Będlewo site 20/27, on the background of Jastorf Culture sites or sites with elements of this culture. – A: Cemeteries. – 1. Biała site 1. – 3. Boruszyn. – 6. Ćmachowo (Ćmachów). – 7. Czarnków (Villa Ulmenstein). – 11. Drawsko site 1. – 14. Grodziszcze site 12. – 15. Grzępy site 5. – 16. Jabłonowo (Jabłkowo). – 20. Koninko. – 21. Kuźnica Żelichowska site 1. – 28. Nowe Miasto site 1. – 34. Poznań-Nowe Miasto site 226. – 38. Rosko site 5. – 41. Sokołowice. – 43. Staw. – 45. Świerkówiec site 2. – 49. Wierzenica. – 51. Wszedzień site I. – 52. Wszedzień site II. – 53. Wojnowo site 23. – B: Settlements. – 2. Borzejewo site 22. – 4. Broniewice site 1. – 9. Dobieszowice site 1. – 10. Dopiewo sites 26, 29 and 70. – 12. Dzierznica site 35. – 17. Jaromierz site 19. – 19. Komorniki site 39. – 24. Młodzikowo site 21. – 25. Modliszewo site 10. – 27. Nowa Wieś sites 1 and 12. – 29. Obórka site 2. – 30. Otorowo site 66. – 31. Piła (Lisikierz). – 32. Pławce site 22. – 34. Poznań-Nowe Miasto site 226. – 35. Poznań-Nowe Miasto site 278. – 36. Poznań-Nowe Miasto site 284. – 37. Rosko site 4. – 39. Rosko site 7. – 42. Sowinki site 23B. – 46. Wapniarnia site 129. – 47. Więckowice site 20. – 53. Wojnowo site 23. – 56. Żółwin site 3. – 57. Żółwin site 8. – C: Loose findings. – 5. Bukowice. – 8. Czarnków. – 13. Grabonóg. – 18. Jutrosin. – 22. Łuszczewo. – 23. Milczek. – 26. Myszki. – 33. Podlesie. – 40. Sobiejuchy. – 44. Sulęcin. – 48. Wilcza. – 50. Włoszakowice. – 54. Wytomyśl. – 55. Zagórzyn (after Michałowski 2014, corrected and supplemented).

of the Jastorf Culture population,[71] which most likely reached this area from northwestern Germany and Denmark. This is because materials associated with the Jastorf Culture that are present in central Wielkopolska, are primarily linked with the style that is characteristic of the Ripdorf phase that corresponds to the end of the LT C1 and the LT C2 periods.[72] This is the period that should be linked to the occurrence of Jastorf Culture settlements that were established from scratch, such as Borzejewo site 22, Komorniki site 39, Pławce site 22, and Poznań-Nowe Miasto sites 226, 278, and 284, as well as to the discoveries of unit graves with stone fortifications from the burial

[71] See e.g. Babeş 1993, 168–173. – See also Peschel 1992, 121–122.

[72] Dąbrowska 1988, 62.

grounds in Koninek and Wierzenica, linked to the areas of Meklenburg and Brandenburg.[73] Besides ceramic materials that have their counterparts in the inventories of the Jastorf Culture of the "Latenized" Ripdorf phase, one should mention metal products that, in the context of this part of Wielkopolska, have been found in the settlements in Sowinki site 23B and Poznań-Nowe Miasto site 226.[74]

It appears that the brooch from Będlewo perfectly corresponds to materials with Jastorf Culture characteristics which are clear here with reference to the early stage of the younger pre-Roman period. This is confirmed by both the stylistic aspects of the brooch, which quite clearly indicate its local Jastorf nature, and its chronological position. It should also be mentioned that site no. 20/27 in Będlewo is a part of a compact group of sites associated with the model of material culture that is typical of the traditions of northwestern Europe (Fig. 16). Thus, it is another point on the map in the area of the central Warta with a quite stable settling centre,[75] with a clear reception of Jastorf Culture materials, which undoubtedly continues until the beginning of phase A2, i.e. until the time when the presence of representatives of the Jastorf Culture during their expansion to the north must be assumed. The short period of the aforementioned stabilization of settlement of Jastorf characteristics is not only the result of the spread of the Jastorf Culture population towards northern Wielkopolska[76] and then to Kujawy, but most of all, the result of the high mobility of groups connected with the broadly defined Jastorf Culture. Such mobility is commonly associated with the historical migration of Bastarns to the Black Sea, with the penetration of the Polish Lowland being only one of its stages. This explains the lack, in the entire part of Poland through which this migration took place, of long-term burial grounds that could be associated with Bastarns. One must keep in mind, even without regard to the importance of the Jastorf Culture stream in the process of "Latenization", that the traces of migrations of groups of people are mostly short-term settlements, seasonal settlements, or campsites.[77]

Thus, the issue of the settlement recorded in Będlewo, which so far has been associated with a population of the Przeworsk Culture, appears to be very interesting. In the context of the brooch, the question arises of whether this is, in fact, a Przeworsk Culture settlement, most often established not earlier than at the end of phase A1 or at the start of phase A2, where an artefact of Jastorf Culture origin was found, or whether this is a settlement that should be associated with a group migrating from northwestern Europe. Both possibilities appear to be just as likely. In the former case, this could be the result of contacts between populations of both cultures, which did take place at the end of the early stage of the younger pre-Roman period as a result of the expansion of the Przeworsk Culture population. A similar situation took place in the nearby and so far unpublished settlement in Sowinki, site 23B. On the other hand, it would not be surprising if the Będlewo site was in fact a settlement of a group representing the Jastorf Culture. This is because the site in Będlewo is located in a compact group of sites, mostly settlements, of the Jastorf model of material culture; also, in its nearest vicinity loose materials have been found that were connected to the migration of Bastarns to the present-day Ukraine and Moldova. Nevertheless, at this stage of the research, this issue must remain unresolved.

CONCLUSION

Obtaining credible sources for a detailed analysis of the relationships between the Pomeranian Culture, which constituted the local element at that time, and the newcomers entering Wielkopolska from the quickly "Latenized" Jastorf Culture area and the Przeworsk Culture that came into being at that time, is currently the biggest challenge to Wielkopolska's archaeology of the pre-Roman period. It is important to estimate the extent to which the local communities from Wielkopolska participated in the civilizational process referred to as "Latenization" and to trace the resulting transformations until a new social model was formed based on the influences coming from the Roman provinces. Most likely, the present-day Wielkopolska underwent the process of "Latenization" from two different directions and by groups representing different cultures (Fig. 15). This phenomenon explains the frequently discussed lack of a fairly uniform cultural image in Wielkopolska in the younger pre-Roman period, at least until phase A3 of that period (=LT D2), which is considered to be due to the high local diversity of the region. Given the above, the linear model of evolutionary cultural development of Wielkopolska's communities must be rejected and replaced with complex and increasingly visible cultural interactions that are reflected in the genetically diverse archaeological material.

[73] Michałowski 2013, 62.

[74] Michałowski 2005, 167. – Machajewski, Pietrzak 2008, 307.

[75] A similar situation has been observed in the area near the Noteć River.

[76] See also Sobucki, Woźniak 2004.

[77] See Skowron 2006, 27. – Teska 2014, 166.

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ARCHEOMETRIC EXAMINATIONS OF THE BĘDLEWO BROOCH

PRZEMYSŁAW NIEDZIELSKI

Abstract: Examinations of the chemical composition of the brooch are presented. The examinations were performed in accordance with the recommended original strategy of object surface mapping with the use of X-ray fluorescence (XRF). Small differences between the chemical compositions of individual parts of the brooch were indicated, which suggest the likely technology of its production.

Keywords: X-ray fluorescence, metals, archeometry, brooch

RESEARCH MATERIAL

The object of the examinations was a brooch preserved in one piece (Figs. 1 and 2),[1] with traces of corrosion. On the surface of the brooch there are visible traces of most likely the missing element.

RESEARCH METHOD

The examinations were performed using a Tracer III (Bruker, USA) X-ray fluorescence spectrometer with a voltage range of 4–4 kV, current 1–45 μA, fitted with a silicon drift detector (SDD). In the quantitative analyses performed at atmospheric pressure, a 0.3048 mm Al and 0.0254 mm Ti filter were used and the operating parameters of the spectrometer were the following: energy 40 kV, current 11 μA. Calibration was performed in accordance with the data provided by the manufacturer of the spectrometer. During the tests, the portable spectrometer was placed in a laboratory stand (Fig. 3).

Surface tests of the chemical composition of the object (mapping) were performed by changing the position of the object in relation to the X-ray beam and performing successive measurements (Fig. 4). For each position of the object, three measurements were performed; also, the average value and the standard deviation of the results were calculated (RSD %).

RESEARCH RESULTS

The content of 10 metals was determined in 8 parts of the brooch and in its four positions, with a total of over 1000 individual measurements. For each part of the brooch, the average value of metal concentration was calculated from three repetitions (Tab. 1).

For selected measurement points, the scatter of the results of the measurements was determined as the relative standard deviation expressed in percentages (Tab. 2).

The scatter of the individual measurement results was an important piece of information in the interpretation of the results, indicating the differences in the content of individual metals that can either be interpreted as significant or constituting a characteristic of the analytical measurement itself. According to the data obtained for the main components, the scatter of the results was small and in the range of several percent; in the case of admixtures, depending on their content, it was equal to several to several dozen percent.

[1] See the contribution by Teska, Sobucki and Karwowski in this volume.

Fig. 1. Object of research (photo: W. Wątły; the photo was taken with a digital microscope VHX-5000).

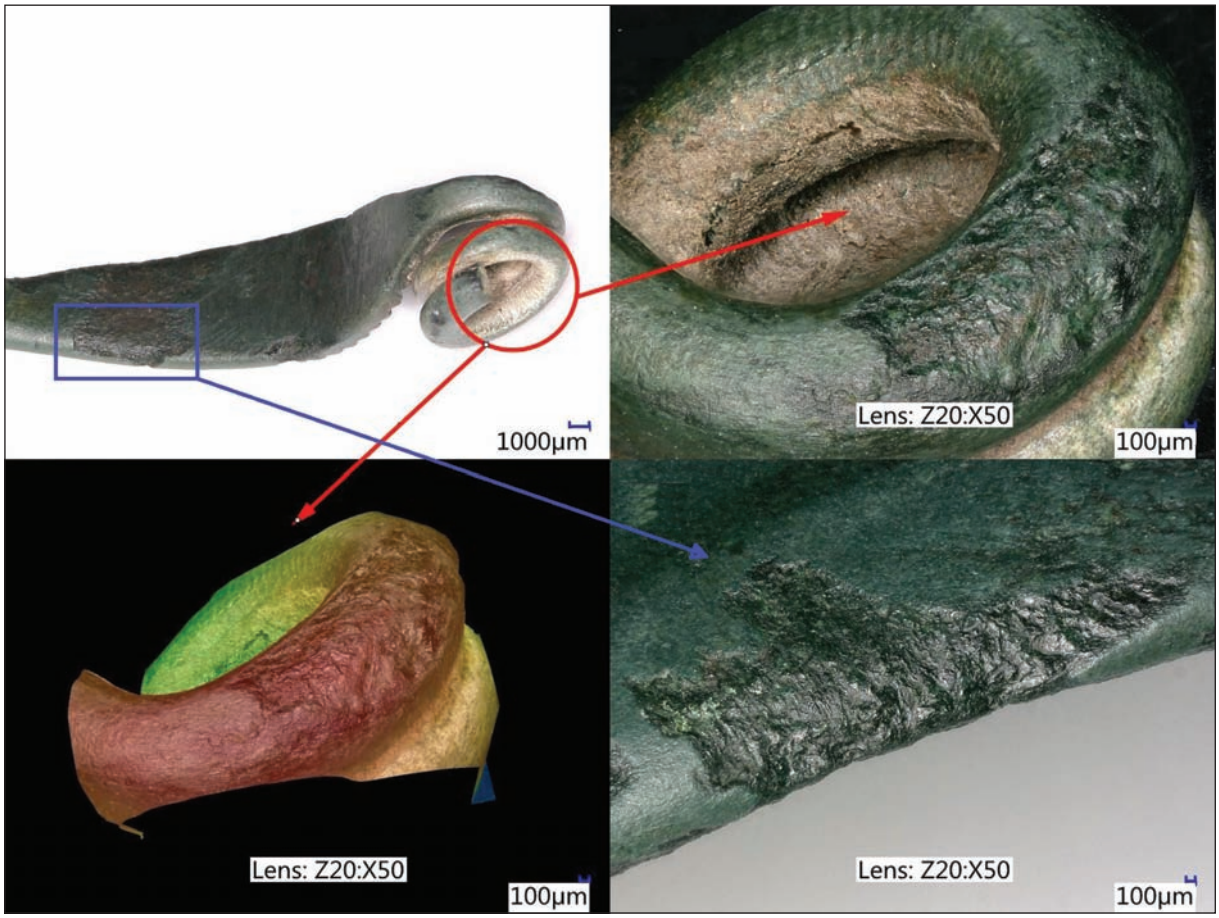

Fig. 2. Object of research (photo: W. Wątły; the photo was taken with a digital microscope VHX-5000).

Fig. 3. Spectrometer XRF Tracer III (photo: P. Niedzielski).

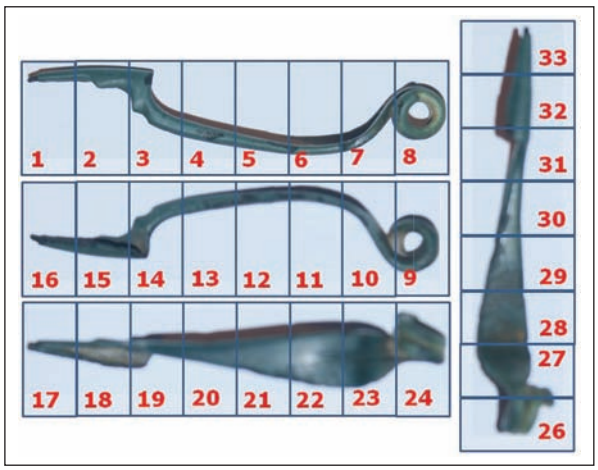

Fig. 4. Strategy for mapping of the chemical composition of the object (graphics: P. Niedzielski).

	Mn	Fe	Cu	Zn	As	Zr	Nb	Sn	Sb	Bi
1	0.07	1.40	28.2	0.02	3.59	0.24	0.08	31.6	1.44	0.45
2	0.05	1.04	26.0	0.07	3.44	0.18	0.04	34.6	1.59	0.28
3	0.12	1.77	31.4	0.05	3.61	0.18	0.05	30.3	1.50	0.34
4	0.10	1.35	20.5	0.05	2.77	0.29	0.05	37.1	1.89	0.62
5	0.13	1.53	29.3	0.09	3.43	0.22	0.07	31.7	1.59	0.26
6	0.09	1.24	26.6	0.09	3.36	0.23	0.06	32.8	1.88	0.35
7	0.09	1.32	29.5	0.05	3.83	0.17	0.03	30.8	1.60	0.30
8	0.07	1.32	28.0	0.07	3.26	0.17	0.03	33.3	1.59	0.29
9	0.07	1.26	20.8	0.04	2.73	0.22	0.05	39.9	1.66	0.16
10	0.17	1.65	22.6	0.10	3.15	0.36	0.04	32.9	2.30	0.49
11	0.10	1.34	19.7	0.08	2.06	0.27	0.06	37.8	2.11	0.15
12	0.09	1.22	21,0	0.04	2.58	0.26	0.04	38.2	1.79	0.33
13	0.04	1.14	21.8	0.03	2.87	0.22	0.05	36.7	1.82	0.28
14	0.05	1.02	21.3	0.03	3.02	0.19	0.04	39.1	1.69	0.15
15	0.08	1.02	21.7	0.03	3.01	0.21	0.04	39.1	1.78	0.08
16	0.08	1.23	20.4	0.03	2.70	0.28	0.06	37.9	2.02	0.43
17	0.09	1.30	34.5	0.06	3.26	0.19	0.06	28.0	1.38	0.21
18	0.14	2.00	32.9	0.04	2.90	0.18	0.06	30.0	1.41	0.22
19	0.07	1.10	21.6	0.04	3.23	0.21	0.03	37.7	1.84	0.26
20	0.05	0.91	24.5	0.03	3.00	0.18	0.04	36.4	1.61	0.21
21	0.05	0.62	36.4	0.03	3.76	0.12	0.03	28.3	1.30	0.14
22	0.04	0.63	38.6	0.06	3.71	0.12	0.02	26.4	1.31	0.14
23	0.04	0.60	41.8	0.02	4.01	0.10	0.01	26.2	1.06	0.10
24	0.05	0.90	43.5	0.06	3.94	0.10	0.01	24.6	1.12	0.06
25	0.05	1.24	22.0	0.02	2.78	0.19	0.04	38.9	1.59	0.27
26	0.09	1.61	21.3	0.05	3.51	0.20	0.04	39.6	1.72	0.13
27	0.15	1.26	31.0	0.06	3.59	0.33	0.07	28.3	2.01	0.56
28	0.16	1.36	47.6	0.09	2.51	0.24	0.08	20.7	1.46	0.54
29	0.16	1.77	24.1	0.14	3.26	0.41	0.06	27.6	2.49	0.53
30	0.15	1.96	19.6	0.11	3.41	0.50	0.03	31.1	2.54	1.09
31	0.04	0.92	20.9	0.04	3.07	0.18	0.02	40.2	1.87	0.06
32	0.07	1.03	20.4	0.05	2.39	0.23	0.05	38.5	2.01	0.14
33	0.04	0.92	20.9	0.04	3.07	0.18	0.02	40.2	1.87	0.06

Tab. 1. Chemical composition of individual parts of the brooch (% by weight, n=3), designations according to Fig. 3.

	Mn	Fe	Cu	Zn	As	Zr	Nb	Sn	Sb	Bi
RSD 22	30	2.1	0.3	8.1	1.9	4.3	25	0.4	1.3	51
RSD 23	19	5.2	0.2	13	3.1	3.0	5.6	0.6	3.6	79

Tab. 2. Relative standard deviation of measurements of different parts of the brooch (in %, n=3), designations according to Fig. 3.

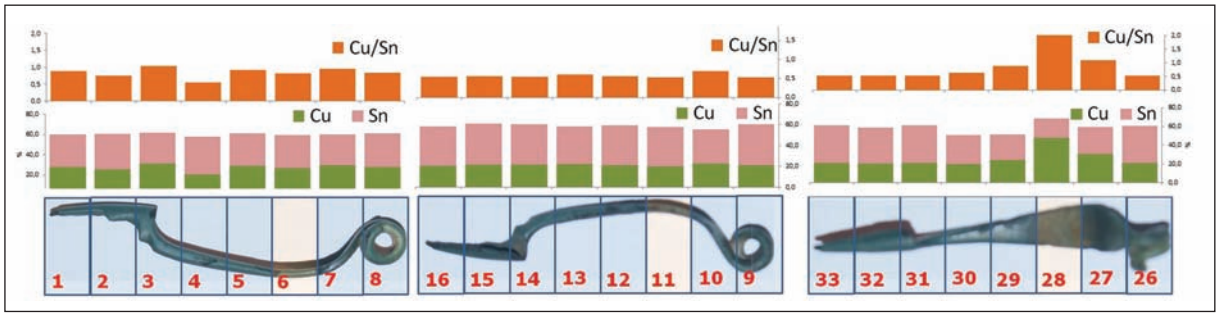

Fig. 5. Percentage composition of bronze in the individual parts of the brooch. The lighter colour indicates the visible place of connection of the missing fragment (pin) of the brooch (graphics: P. Niedzielski).

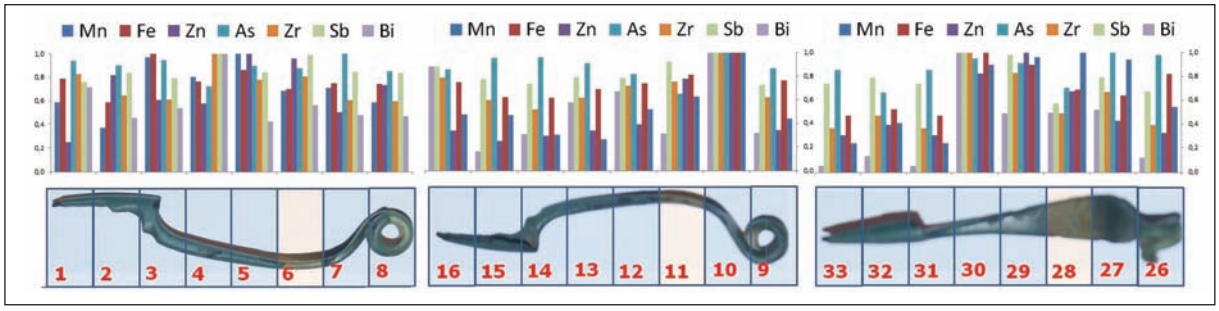

Fig. 6. Normalized content of alloy admixtures for individual parts of the brooch. The lighter colour indicates the visible place of connection of the missing fragment (pin) of the brooch (graphics: P. Niedzielski).

ATTEMPT AT INTERPRETATION OF THE RESULTS

The material of the brooch was a tin and copper alloy (bronze), whereby the percentage content of the main components of the alloy was similar in the different parts of the object (Fig. 5).

The content of admixtures was determined in the same way as the content of the main components of the alloy. To facilitate presentation of the results (different levels of concentration of individual elements), the results were normalized in relation to the highest concentration, which was assigned the value of 1 (Fig. 6). In the case of admixtures, too, no different concentration trend was identified and the area of connection of the missing fragment (pin) of the brooch had the same chemical composition as the other parts of the brooch.

CONCLUSION

The surface tests of the chemical composition of the material of the brooch (mapping) did not indicate any significant differences between the different parts of the brooch. Also, the visible place where the missing part was most likely connected was not different. Thus, the parts of the brooch were not fixed to each other in a durable manner (welded or soldered); moreover, their chemical composition was similar.

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EPILOGUE

M. KARWOWSKI – B. KOMORÓCZY – P. C. RAMSL (EDS.)
ARCHAEOLOGICAL STUDIES OF THE LATE IRON AGE IN CENTRAL EUROPE
SPISY ARCHEOLOGICKÉHO ÚSTAVU AV ČR BRNO 71, BRNO 2021, 291–293

CONFERENCE PROGRAMME AND PARTICIPANT LIST

Project: „Celtic Hilltop Settlement on Oberleiserberg", Universität Wien
Niederösterreichische Landessammlung Ur- und Frühgeschichte MAMUZ Schloss Asparn/Zaya
Institute for Oriental and European Archaeology, Austrian Academy of Sciences

KELTOVÉ / DIE KELTEN 2014
Klement-Oberleis, 11.–13. 06. 2014

Wednesday, 11.06. 2014

10.00-10.15 – **Welcome and Introduction** (*Barbara Horejs, Peter C. Ramsl, Maciej Karwowski, Peter Trebsche*)

10.15-12.30 – **Morning Session**
Radoslav Čambal (Bratislava): Frühlatènezeitliche Fibeln aus Horné Orešany-Slepý vrch in der Sammlung des SNM-Archäologischen Museums in Bratislava.
Kristian Elschek (Nitra): Eine neue frühlatènezeitliche Siedlung in Stupava-Devínske Jazero (Westslowakei).
Zuzana Ďuďáková (Nitra): The Intentional Inventory Destruction in the Celtic Cremation Graves from the Territory of Southwestern Slovakia.
Dominik Repka (Nitra): Evidence of Western Celtic pottery in the territory of the Carpathian Basin in the Early and Middle La Tène period (LT B–C1).

12.30-13.30 – **Lunch Break**
13.30-15.30 – **Afternoon Session I**
Martin Furman (Žilina): The rings with three and four large hollow knobs from flat Celtic cemeteries in Slovakia. The characteristic eastern Celtic artifacts.
Jozef Bujna (Nitra): Schwertgräber aus Malé Kosihy. Fallstudie zu normativen und nicht normativen Bestattungspraktiken.
Gabriela Brezňanová (Banská Bystrica): Western cultural influences reflected in graves inventories from Pişcolt.
Attila Horváth (Budapest): The La Tène cemetery of the Northern pole of the Csepel Island (Budapest).

15.30-16.00 – **Coffee Break**
16.00-18.00 – **Afternoon Session II**
Peter Barta (Bratislava), Karol Pieta (Nitra): Die nordslowakischen Zufluchtsorte und ihre Zeitstellung.
Lucia Benediková (Nitra): Der Anfang der Latènezeit im nördlichen Teil der Westkarpaten (im Kontext der Absolutdaten aus dem Liptauer Becken).
Peter Trebsche (Asparn an der Zaya): Struktur, interne Organisation und Planungsprozesse latènezeitlicher Siedlungen in Ostösterreich.
Dragan Božič (Ljubljana): Die Zeitstellung der Hortfunde mit eisernem Werkzeug und Gerät aus Pohanská in der Slowakei und aus Falkenstein in Niederösterreich.

Thursday, 12.06. 2014

09.00-10.30 – **Morning Session I**
Martin Trefný (Hradec Králové), *Tomáš Polišenský* (Praha): Celtic pottery of the late Hallstatt/early La Tène period in Bohemia and its relationship to the advanced production of the ancient Mediterranean.
Jan Kysela (Praha): Misthos? Sítos? Chrèmata? Some stray thoughts on the finds of Greek coins in Central Europe.
Marko Dizdar (Zagreb): Middle La Tène Female Costume from the Zvonimirovo Cemetery, Northern Croatia.

10.30–11.00 – **Coffee Break**
11.00–12.30 – **Morning Session II**
Boštjan Laharnar (Ljubljana): The "silver horizon" in the Posočje region.
Boris Kavur (Koper): A balanced world – the end of the Era of Dragons.
Lara Orlić (Pula): A north Italic fibula at the Eastern Celts. Late La Tène fibulae of the Nauheim I.10 type after Demetz or San Bernardo type after Meller.

12.30–13.30 – **Lunch Break**
13.30–15.00 – **Afternoon Session**
Alžběta Danielisová (Praha), *Jiří Militký* (Praha): New results from the systematic prospection of the Czech Iron Age settlements.

Natalie Venclová (Praha): Glass from the Třísov oppidum in south Bohemia.
Maciej Karwowski (Rzeszów-Wien): Middle La Tène brooches of variant Kożuchów.

15.30-17.30 – **Visit of the site Oberleiserberg** (*Alois Stuppner* and *Maciej Karwowski*)
18.00 – **Dinner**

Friday, 13.06.2014

09.00–10.30 – **Morning Session I**
Leszek Żygadło (Wrocław): Neue Funde der La Tène-Kultur in der Nähe von Wrocław, Niederschlesien.
Marcin Rudnicki (Warszawa): The Celts in Kujawy Region (Central Poland) on the basis of new data.

10.30–11.00 – **Coffee Break**
11.00–12.30 – **Morning Session II**
Milena Teska (Poznań), *Artur Sobucki* (Poznań): Influence, trade or relations? New discovery of a Nauheim fibula from Wielkopolska.
Milena Teska (Poznań), *Daniel Żychliński* (Gniezno): La Tène influences in the style of the PreRoman Iron Age pottery in Wielkopolska.
Przemysław Dulęba (Wrocław): Late La Tène pottery workshop in the settlement of Zagórze in western Little Poland.

12.30–13.30 – **Lunch Break**
13.30–15.00 – **Afternoon Session**
Milena Teska (Poznań), *Andrzej Michałowski* (Poznań): Mögliche Einwirkungen der keltischen Architektur in das Bauwesen der Przeworsk-Kultur in der vorrömischen Eisenzeit.
M*arek Olędzki* (Łódź), *Leszek Ziąbka* (Kalisz): Celtic penetration of the area between the rivers Prosna and Vartha during LT D2.
Andrzej Dubicki (Łódź): Burebista and the decline of the Celtic power in the middle Danube area.

15.00–15.30 – **Coffee Break**
15.30 – **Discussion and close of the conference**

POSTERS

Gertrúda Březinová (Nitra): Early Glass of the La Tène Period from Slovakia.
Daniel Bursák (Praha), *David Daněček* (Roztoky u Prahy), *Kamil Smíšek* (Praha): Neue Funde aus dem Burgwall bei Minice (Kr. Mělník, Mittelböhmen). Ein Beitrag zur Frage der Bronzeverarbeitung in der Späthallstattzeit.
Ivan Čižmář (Brno): Depots aus der Spätlatènezeit vom Berg „Modla" bei Buchlovice.
Hana Čižmářová (Opava): Neue Funde von Speichenrädchen aus der Latènezeit in Mähren.
Veronika Holzer (Wien): Neue Forschungsergebnisse von Roseldorf.
Peter Horváth (Nitra): The situlas with ornaments in context of economic exchange relationships.
Piotr Łuczkiewicz (Lublin): Von Noricum und Pannonien nach Norden: Die Lubliner Hochebene und die ersten Kontakte zu Beginn der römischen Kaiserzeit.
Monika Pecinovská (Praha): Die stempelverzierte Keramik aus Dobrovíz (Kr. Praha-West).
Peter C. Ramsl (Wien): Brandgräber-Waffengräber in Nordostösterreich.
Emilia Smółka (Poznań): Possible influence of the La Tène circle on the origins of spurs in the central and northern European Barbaricum.
Alexander Stagl (Wien), *Natalia Munoz* (Marburg-Wien): Latène Siedlungsbefund in Prellenkirchen 2013.
Andrej Vrtel (Bratislava), *Tomáš König* (Bratislava): Spätlatènezeitliche Siedlungsfunde aus Bratislava, Kapitulská Str. 6–8.
Anna Vrtelová (Nitra): Cemetery Palárikovo. Graves with scissors.

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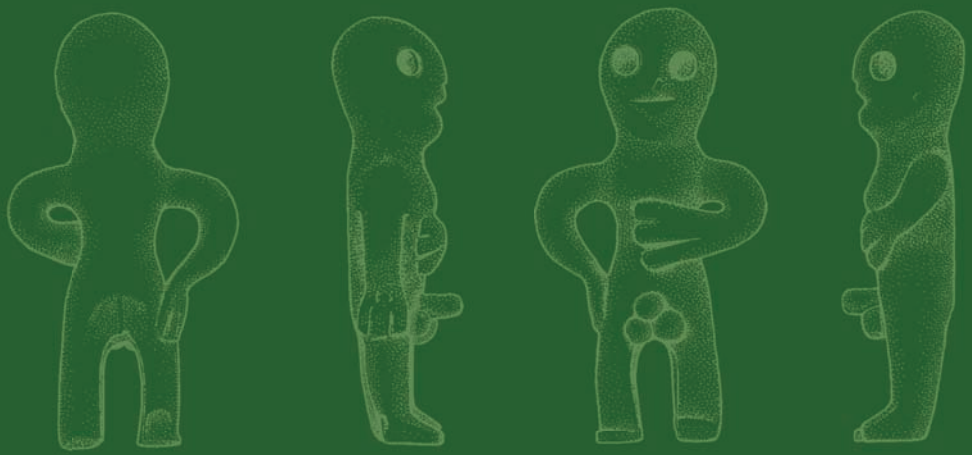

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